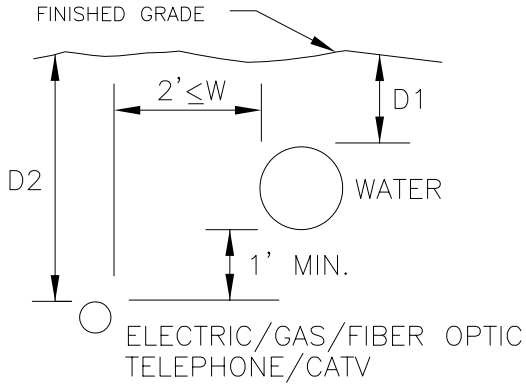
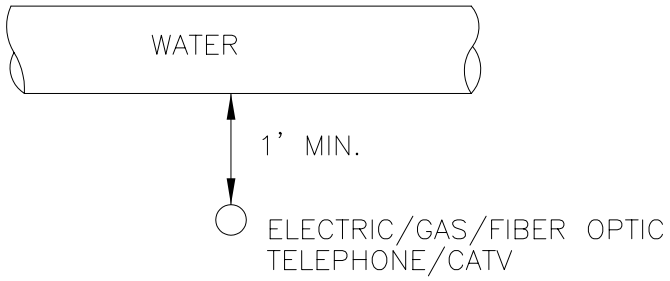
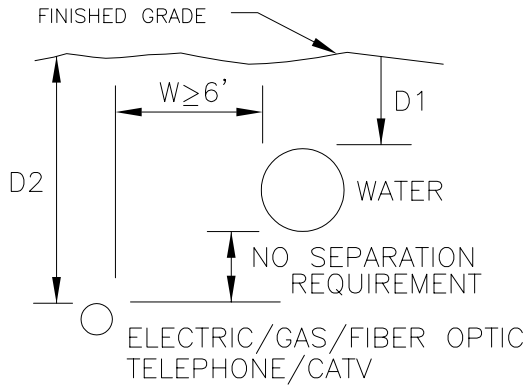




CROSSING

LEGEND

D1= 3'Min. for pipe <12" dia
D1= 4'Min. for pipe ≥12" dia
D2= Minimum Cover
W = Horizontal Separation

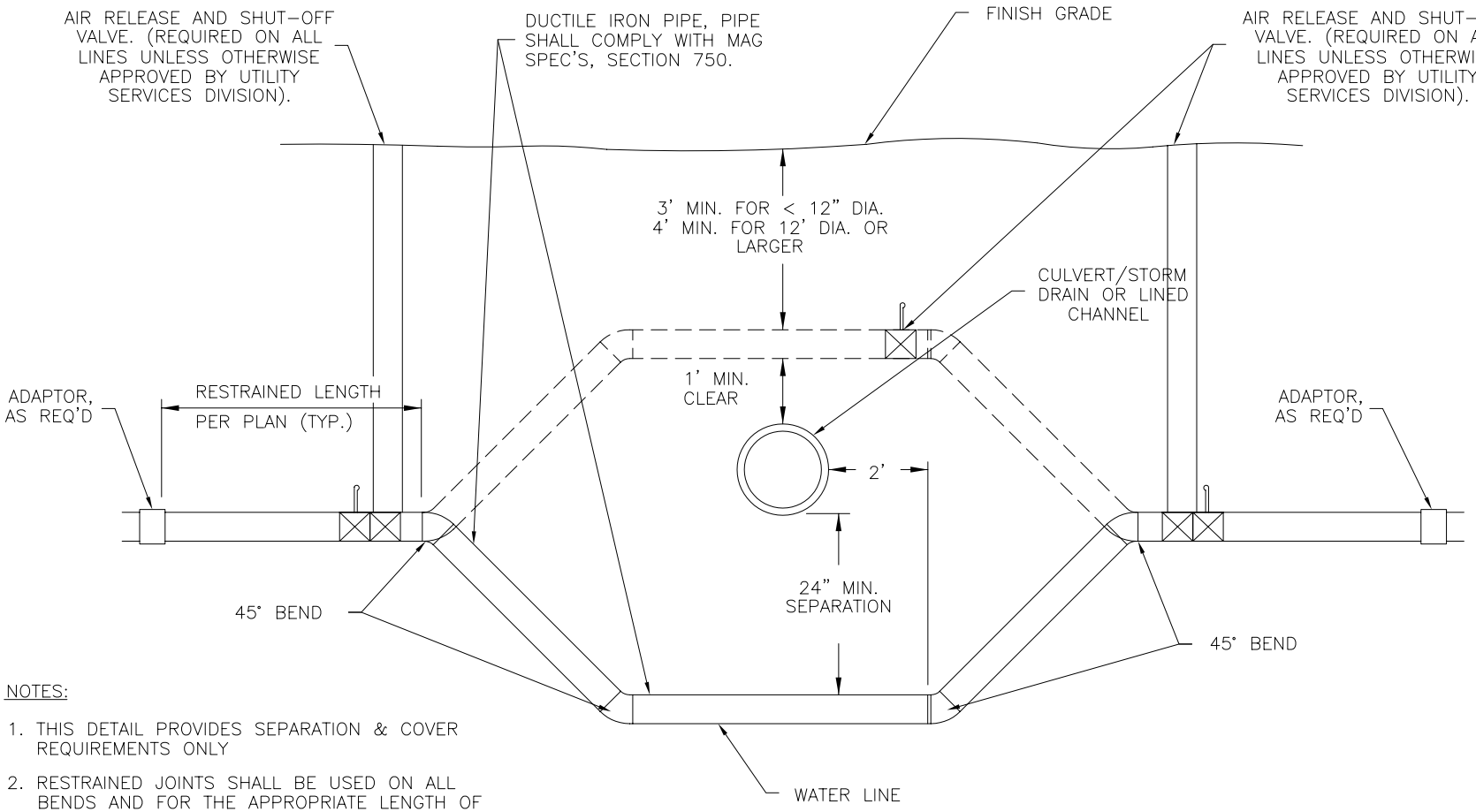


NOTES

1. Electric separation requirements are for primary electric conductors only. For service conductors see plans.

2. Primary electric, gas, telepone, cable TV or fiber optic lines shall not cross above a water line without written approval from the City's Utility Service Division
If this approval is obtained, a utility locator strip and ABC slurry.

DETAIL NO. G-3300	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	MINIMUM UTILITY SEPARATION REQUIREMENTS	DETAIL NO. G-3300



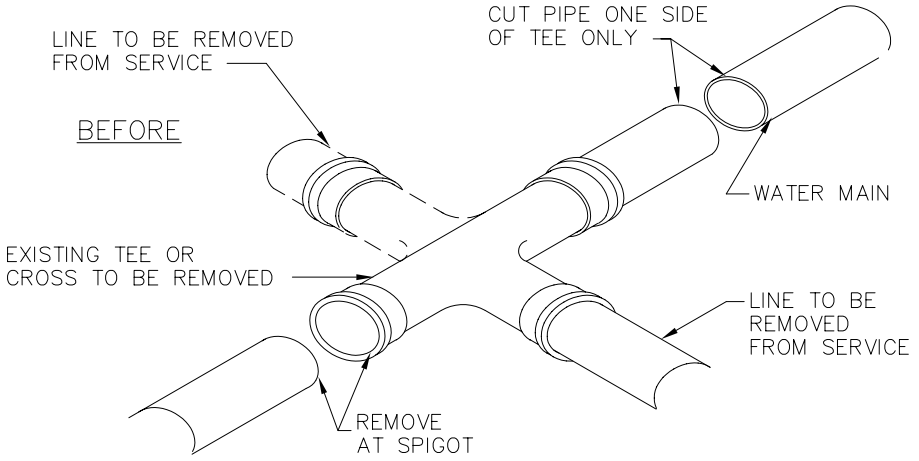
NOTES:

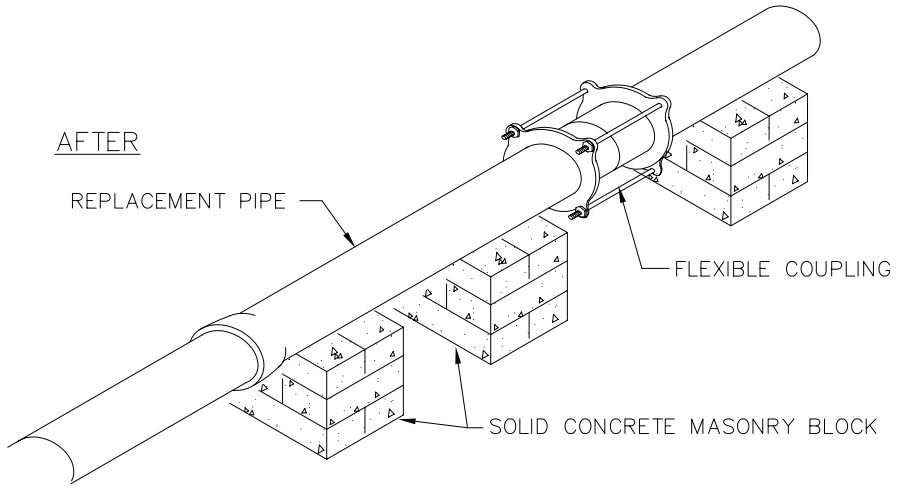
1. THIS DETAIL PROVIDES SEPARATION & COVER REQUIREMENTS ONLY
2. RESTRAINED JOINTS SHALL BE USED ON ALL BENDS AND FOR THE APPROPRIATE LENGTH OF PIPE PER THE MANUFACTURERS SPECIFICATION.

DETAIL NO. G-3301	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	VERTICAL REALIGNMENT OF WATER MAINS	DETAIL NO. G-3301

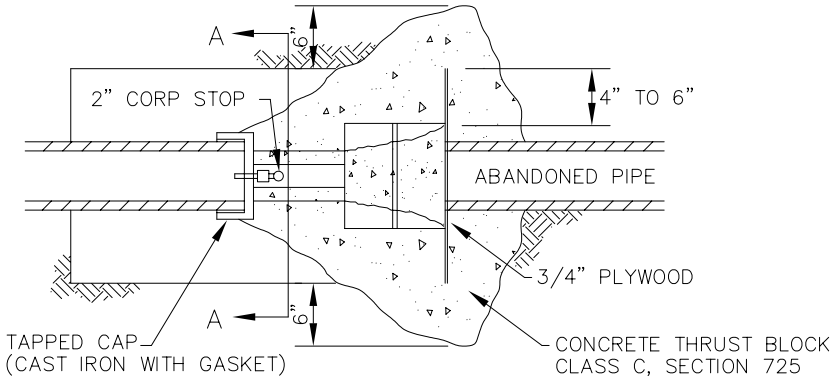
NOTES

1. REPLACE PIPE MATERIAL SHALL BE IN KIND OR DUCTILE IRON.
2. WHERE POSSIBLE, ONE END OF THE REPLACEMENT PIPE SECTION SHALL CONNECT TO AN EXISTING BELL OR SPIGOT.
3. FLEXIBLE COUPLING SHALL BE THE CAST IRON TYPE AND SPECIFICALLY DESIGNED FOR USE ON THE PIPE SIZE AND MATERIAL(S) BEING CONNECTED. USE OF FULL CIRCLE REPAIR CLAMPS IS PROHIBITED.
4. THE NEW REPLACEMENT PIPE SECTION SHALL BE ADEQUATELY DRY BLOCKED PRIOR TO BACKFILLING.
5. BACKFILLING SHALL NOT BEGIN UNTIL LINE PRESSURE IS RESTORED AND CONNECTIONS INSPECTED FOR LEAKAGE BY WATER DEPARTMENT PERSONNEL.
6. DRY BLOCKS SHALL BE STANDARD SIZE SOLID MASONRY CONCRETE BLOCKS. (ASTM C-139)
7. REPLACEMENT PIPE SHALL BE CLEANED IN ACCORDANCE WITH SECTION 611.1.

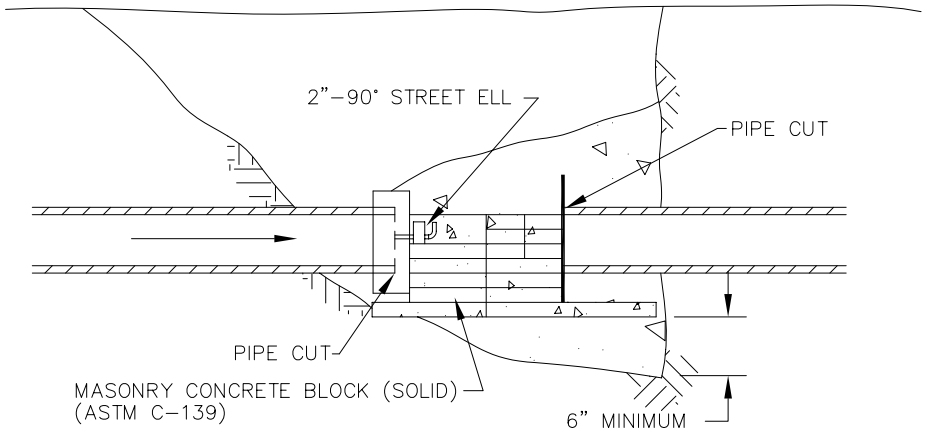




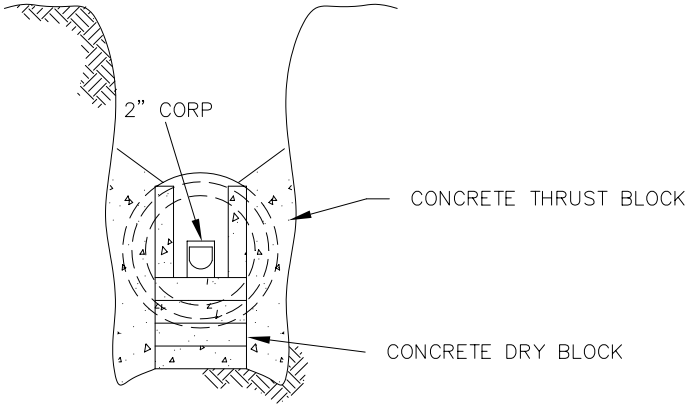
DETAIL NO. G-3303	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	WATERLINE CUT OUT (TEES & CROSSES) FOR 12" DIA. MAIN AND SMALLER	DETAIL NO. G-3303



PLAN VIEW



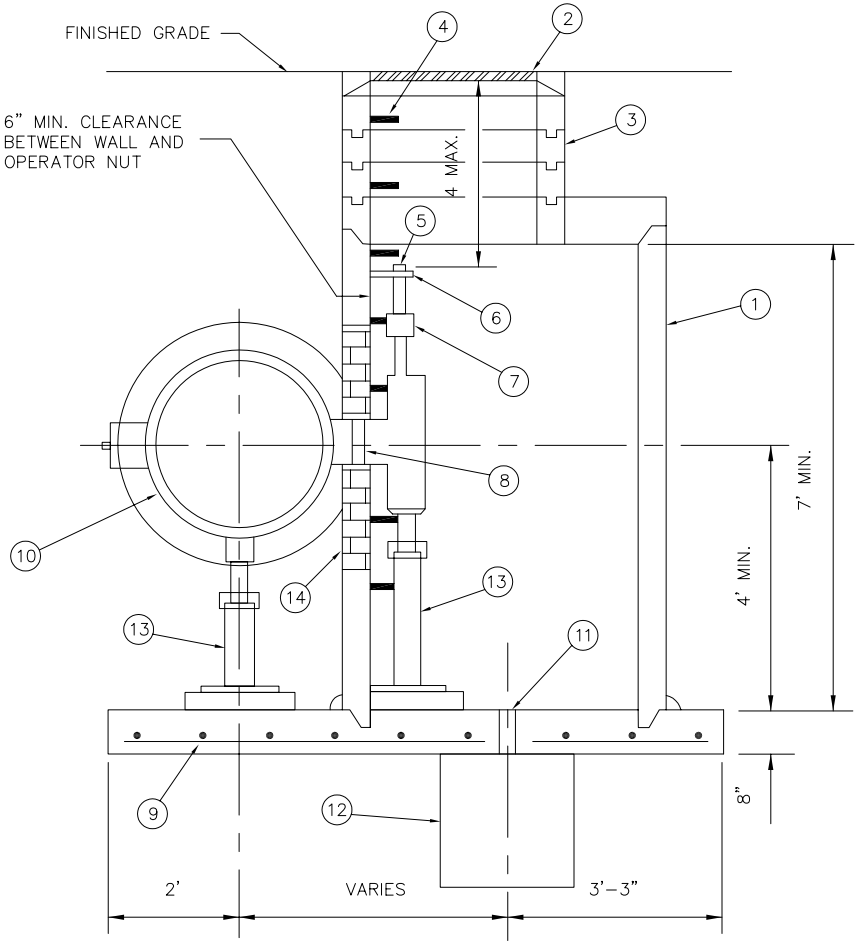
PROFILE VIEW



NOTES

1. CUT AND PLUGS MUST BE ADEQUATELY "DRY BLOCKED".
2. DRY BLOCKS SHALL BE STANDARD SIZE SOLID MASONRY CONCRETE BLOCKS. (ASTM C-139)
3. THE QUANTITY AND ARRANGEMENT OF THE BLOCKING MUST WITHSTAND LINE PRESSURE BY HOLDING THE CAP OR PLUG IN POSITION.
4. DRY BLOCKING SHALL BE PROPERLY SHIMMED TIGHT AND SECURE AGAINST THE CAP BEFORE LINE PRESSURE IS RESTORED.
5. CONCRETE THRUST BLOCKS SHALL NOT BE POURED UNTIL LINE PRESSURE IS RESTORED AND THE CAP OR PLUG IS INSPECTED FOR LEAKAGE.
6. CONCRETE SHALL NOT BE POURED OVER ANY PORTION OF THE ABANDONED PIPE.
7. MINIMUM THRUST BLOCK AREA PER M.A.G. DETAIL 380.
8. WHERE A 4" OR LARGER LINE IS SPECIFIED TO BE ABANDONED, CUT AND PLUG SHOULD OCCUR AT THE SUPPLY MAIN TO AVOID CREATING AN UNUSED DEADEND LINE.

DETAIL NO. G-3305	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	WATERLINE-CUT AND PLUG FOR 12" DIA. MAIN AND SMALLER	DETAIL NO. G-3305

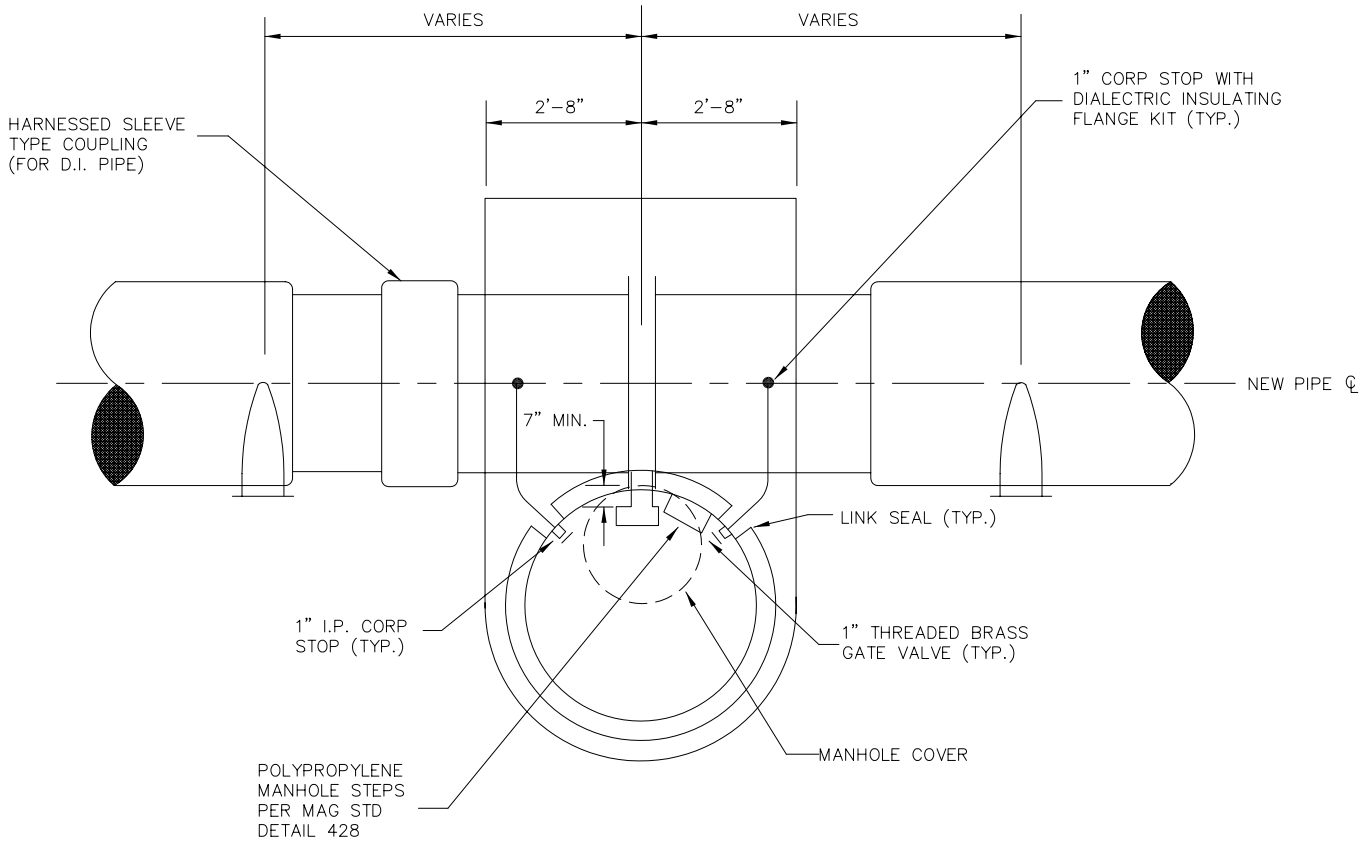


SECTION

LEGEND

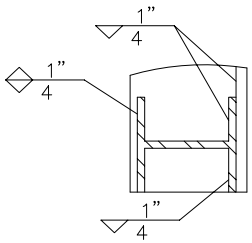
1. 48" I.D. MANHOLE SHAFT PER MAG STD. DETAIL 420, TYPE "B" TOP
2. 30" MANHOLE FRAME & COVER PER MAG STD. DETAIL 424.
3. GROUTED ADJUSTING RINGS
4. POLYPROYLENE MANHOLE STEPS PER MAG STD. DETAIL 428, 12" SPACING TYPICAL
5. OPERATOR NUT
6. WALL BRACKET
7. PACKING GLAND
8. 6" EXTENSION
9. #4 REBAR 12" ON CENTER EACH WAY 2" CLEAR TYPICAL
10. BUTTERFLY VALVE
11. 3" DIAMETER DRAIN
12. 8 CU. FT. GRAVEL SUMP
13. ADJUSTABLE PIPE SADDLE SUPPORT
14. RECTANGULAR CUT-OUT IN MANHOLE SHAFT FILL SPACE BETWEEN SHAFT AND PIPE WITH 1" SHEET FOAM, BRICK AND MORTAR

DETAIL NO. G-3307-1	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	BUTTERFLY VALVE OPERATOR MANHOLE	DETAIL NO. G-3307-1



PLAN

DETAIL NO. G-3307-2	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	BUTTERFLY VALVE OPERATOR MANHOLE	DETAIL NO. G-3307-2

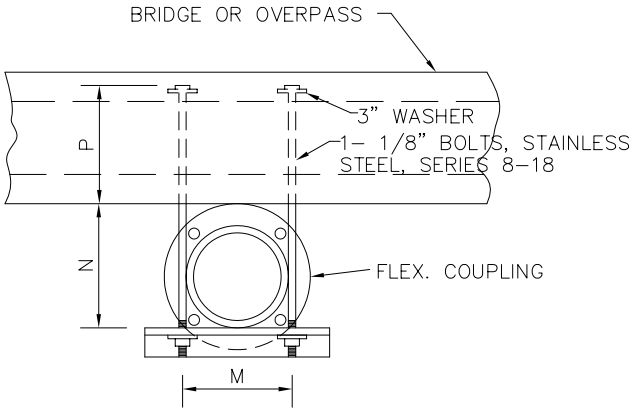


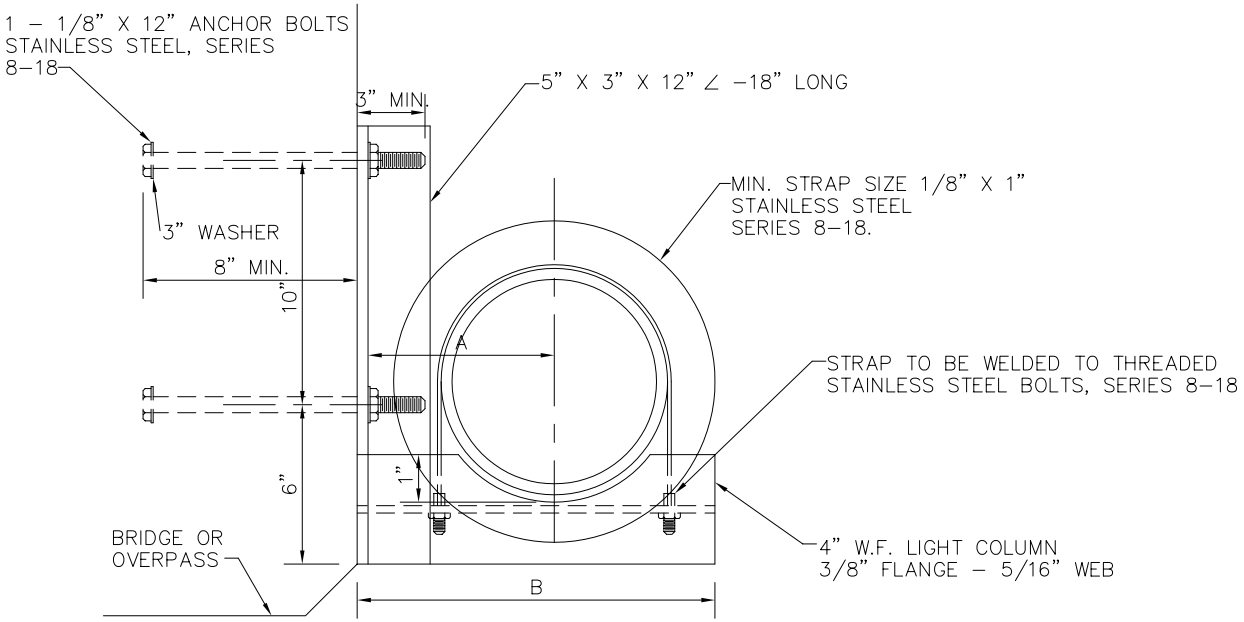
SECTION X–X

PIPE SIZE	A	B
8"	8"	15"
10"	9"	17"
12"	10"	19"

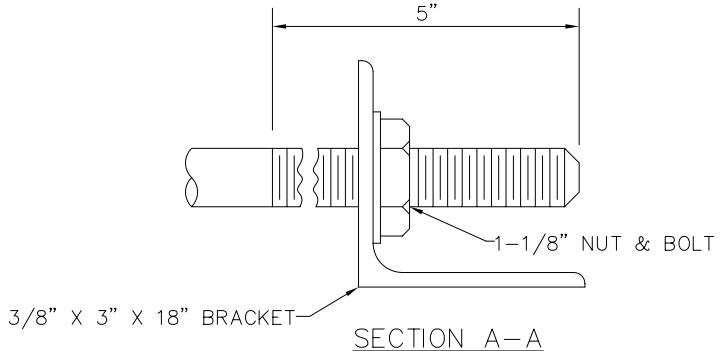
NOTE

1. MINIMUM 2 SUPPORTS PER JOINT OF PIPE.
2. ALL NUTS SHALL BE STAINLESS STEEL SERIES 8–18.
3. ALL BOLTS SHALL HAVE A LOCK WASHER UNDER THE NUT.





SIDE SUSPENSION

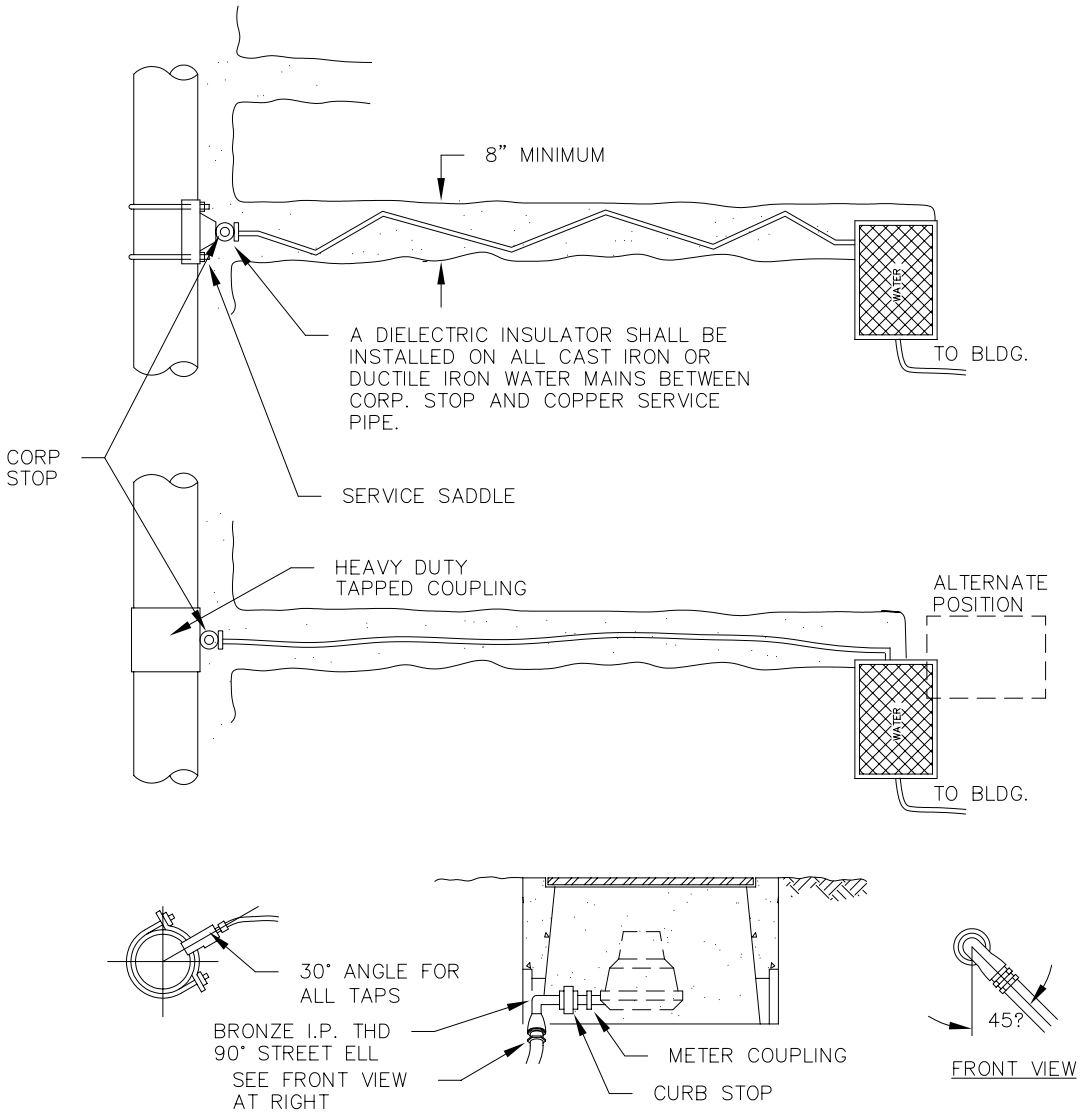


SECTION A–A

PIPE SIZE	M	N	P
8"	10.25"	12"	8"
10"	12.50"	14"	8"
12"	15"	16"	8"

BOTTOM SUSPENSION

DETAIL NO. G-3309	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	WATER LINE SUSPENSIONS	DETAIL NO. G-3309



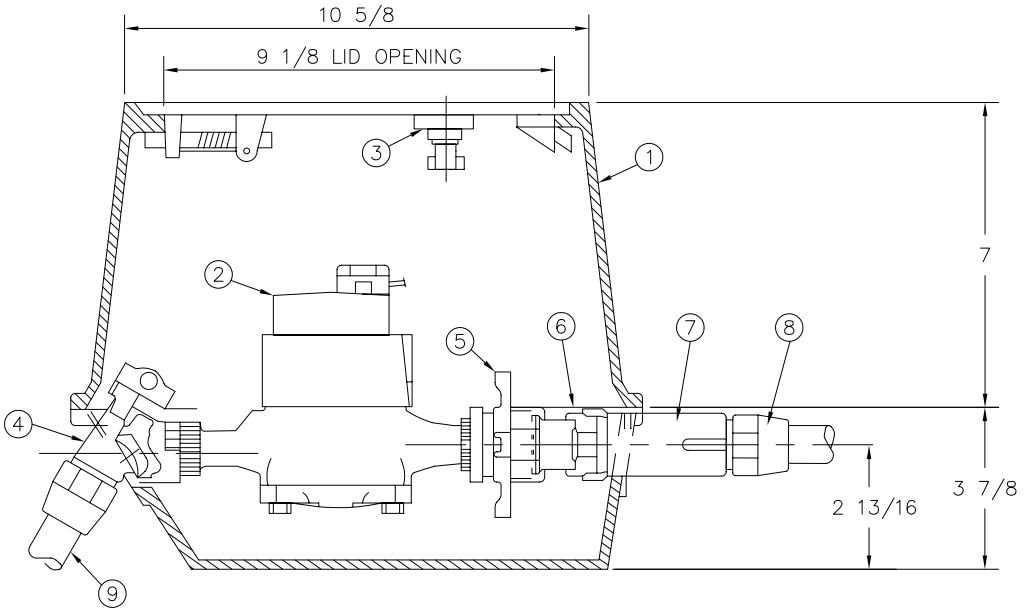
GENERAL NOTES

1. NEW WATER SERVICE TAPS SHALL BE INSTALLED USING AN ALL–BRONZE DOUBLE–STRAP TAPPING SADDLE OR A TAPPED COUPLING.
2. 30" MINIMUM COVER IS REQUIRED FOR SERVICE LINES.
3. WATER SERVICE INCLUDES THE CORP. STOP, SERVICE PIPE, APPURTENANT FITTINGS, CURB STOP, METER BOX & COVER. APPROVED WATER SERVICE COMPONENTS ARE LISTED IN CITY OF PHOENIX SUPPLEMENTS
4. DELETED
5. ONLY AUTHORIZED PERSONAL OF THE WATER & WASTEWATER DEPT. SHALL INSTALL THE SERVICE CONNECTION FOR ANY EXISTING CITY WATER MAIN SERVING ALL OR PART OF A NEW SUBDIVISION.
6. WATER METER WILL BE INSTALLED BY CITY FORCES.
7. FOR 3/4" THROUGH 2" SERVICE USE COPPER PIPE.
8. FOR WATER METER LOCATION SEE CITY OF GOODYEAR DETAIL G–3313–1

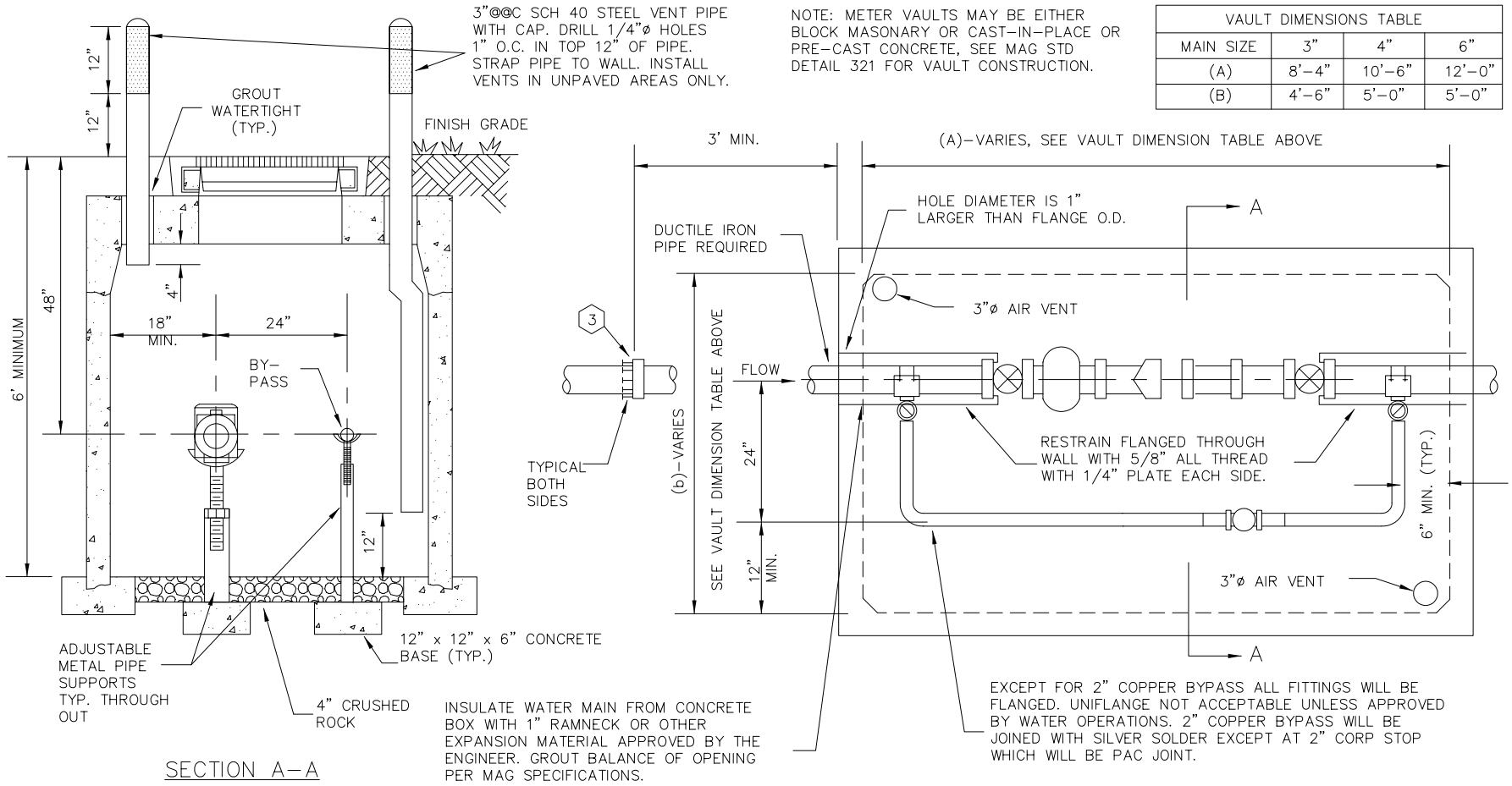
DETAIL NO. G-3310	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	WATER SERVICE CONNECTIONS	DETAIL NO. G-3310

LIST OF MATERIALS

1. METER BOX–FOR MODEL YM HC 241–243–T–G OR APPROVED EQUAL
2. SENSUS–SRII–TRPL 3/4" x 3/4" SHORT WATER METER
3. TOUCHREAD DEVICE
4. ANGLE OR STRAIGHT YOKEBOX VALVE
5. EXPANSION CONNECTION ASSEMBLY
6. CARTRIDGE ACCESS CAP
7. DUAL CARTRIDGE CHECK VALVE
8. CUSTOMER CONNECTION POINT
9. COPPER SERVICE LINE (1" MIN)



DETAIL NO. G–3312	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	3/4" WATER SERVICE METER AND BOX INSTALLATION	DETAIL NO. G–3312

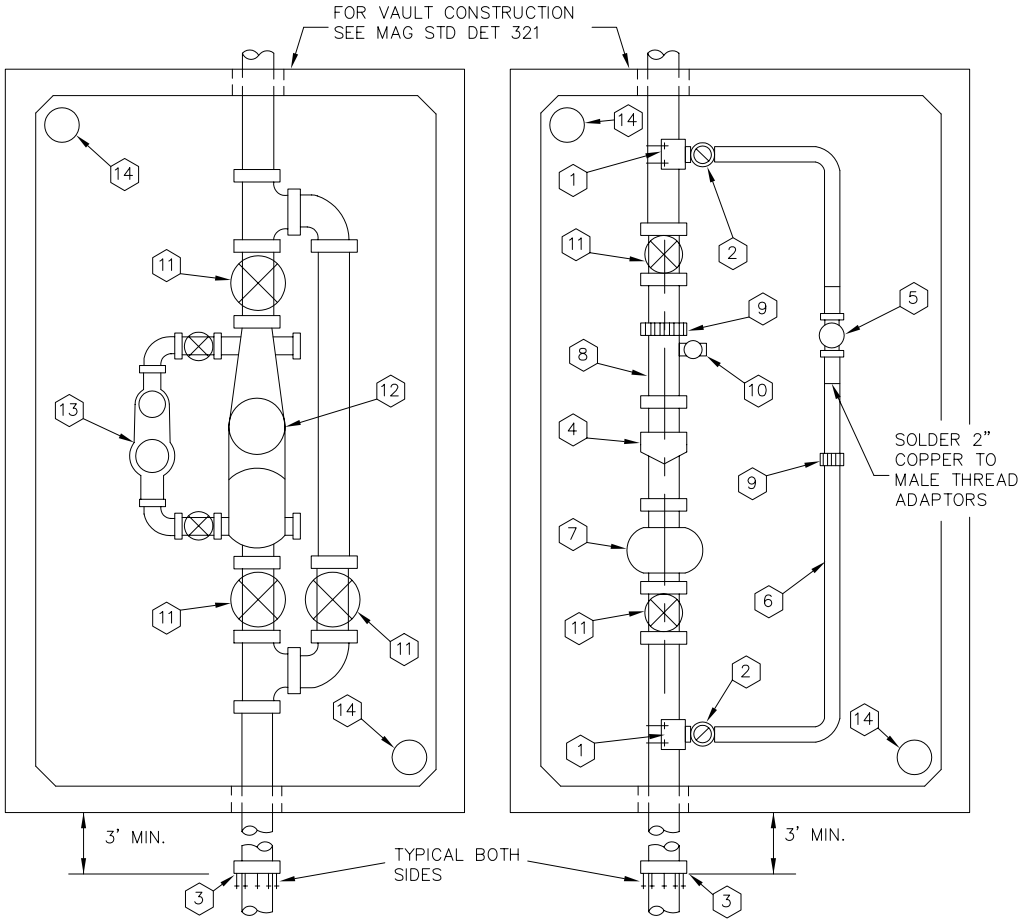


NOTE: METER VAULTS MAY BE EITHER BLOCK MASONARY OR CAST-IN-PLACE OR PRE-CAST CONCRETE, SEE MAG STD DETAIL 321 FOR VAULT CONSTRUCTION.

VAULT DIMENSIONS TABLE			
MAIN SIZE	3"	4"	6"
(A)	8'-4"	10'-6"	12'-0"
(B)	4'-6"	5'-0"	5'-0"

VAULT INSTALLATION

DETAIL NO. G-3313-1	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	3", 4", 6" WATER METER	DETAIL NO. G-3313-1



COMBINATION DOMESTIC/ FIRE LINE METER

COMPOUND/TURBINE METER

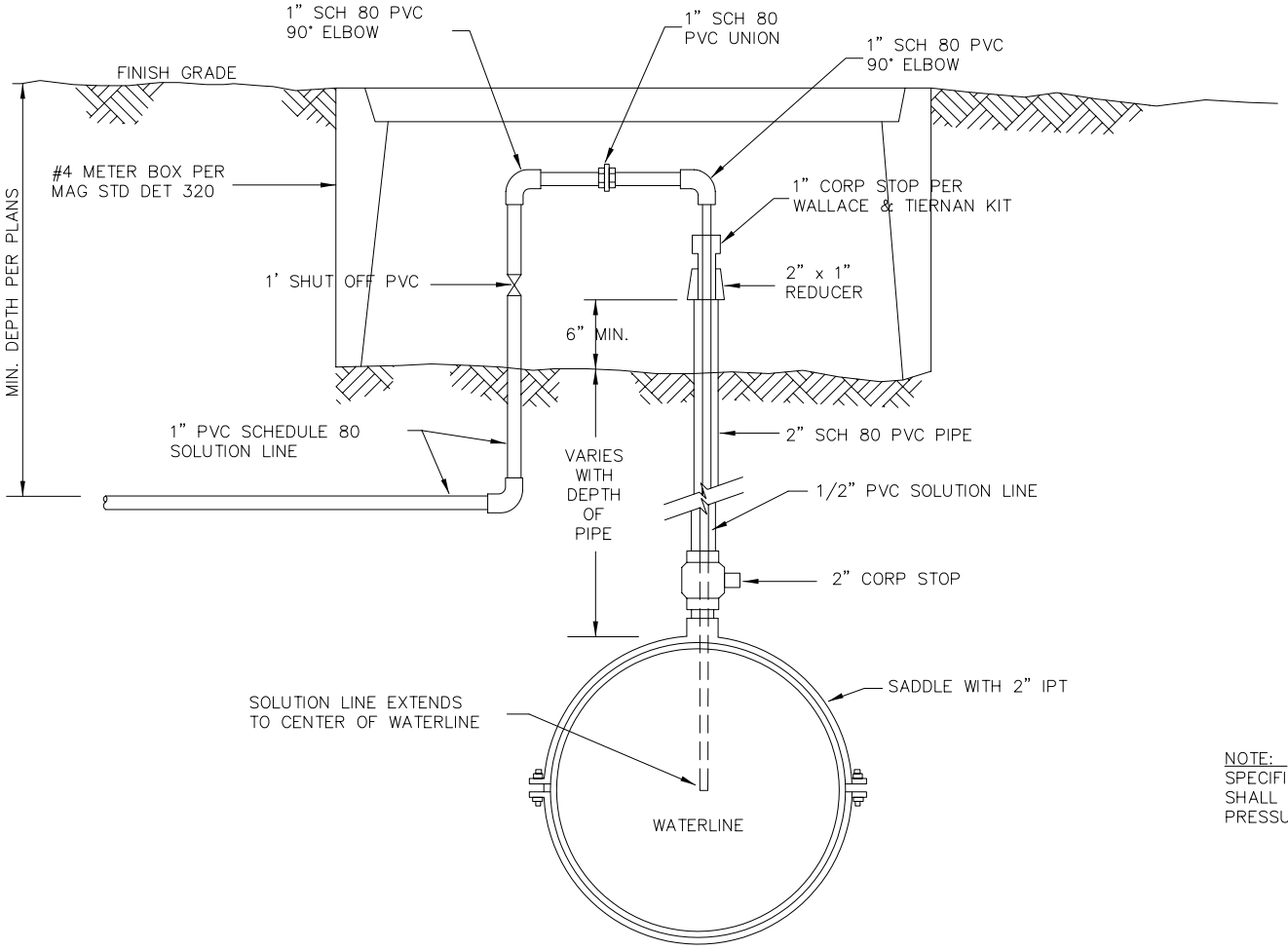
KEY NOTES

1. DOUBLE STRAP ALL BRONZE SERVICE SADDLE, OR FLANGED x FLANGED TEE WITH FLANGED x FLANGED VALVE FOR SIZES 3" OR LARGER
2. CORP. STOP 2" (BALL TYPE), OR R.W. GATE VALVE WITH NON-RISING STEM HANDWHEEL OPERATOR FOR 3" OR LARGER.
3. ADAPTOR, FLANGED TO MECH. JOINT FOR A.C.P.
4. TURBOMETER, SENSUS SERIES "W" OR HERSEY SERIES "MHR" OR NEPTUNE TRIDENT TURBINE.
5. BRONZE CHECK VALVE FOR 2" LINE, CAST IRON WITH COUNTERWEIGHT FOR 3" LINES AND LARGER. (SAME SIZE AS BY-PASS LINE)
6. 2" RIDGED TYPE "K" COPPER BY-PASS LINE, 3" OR LARGER TO BE DUCTILE IRON. NOT LES THAN ONE PIPE SIZE SMALLER THAN METER IN NOTE 4.
7. STRAINER, SUPPLIED WITH METER.
8. FLANGED SPOOL, (3 PIPE DIAMETERS IN LENGTH, MIN.)
9. PROVIDE VICTAULIC COUPLING OR APPROVED EQUAL FOR ALL LINES 3" OR LARGER.
10. 2" THREADED OUTLET AND BALL VALVE NOT NEEDED IF VERTICAL TEST VALVE IS PROVIDED ON METER.
11. RESILIENT WEDGE GATE VALVE, FLANGED, WITH HAND WHEEL, OPEN LEFT, WITH NON-RISING STEM.
12. TURBOMETER U.L. APPROVED: SENSUS W-5000 DR OR W-2000 DR OR HERSEY FM-CT OR NEPTUNE TURBINE-FS-UL.
13. 2" TURBINE METER: SENSUS "W-160" OR HERSEY "MHR" OR NEPTUNE TRIDENT TURBINE.
14. 3"ø AIR VENT, SEE SHEET 1 OF 2.

NOTES

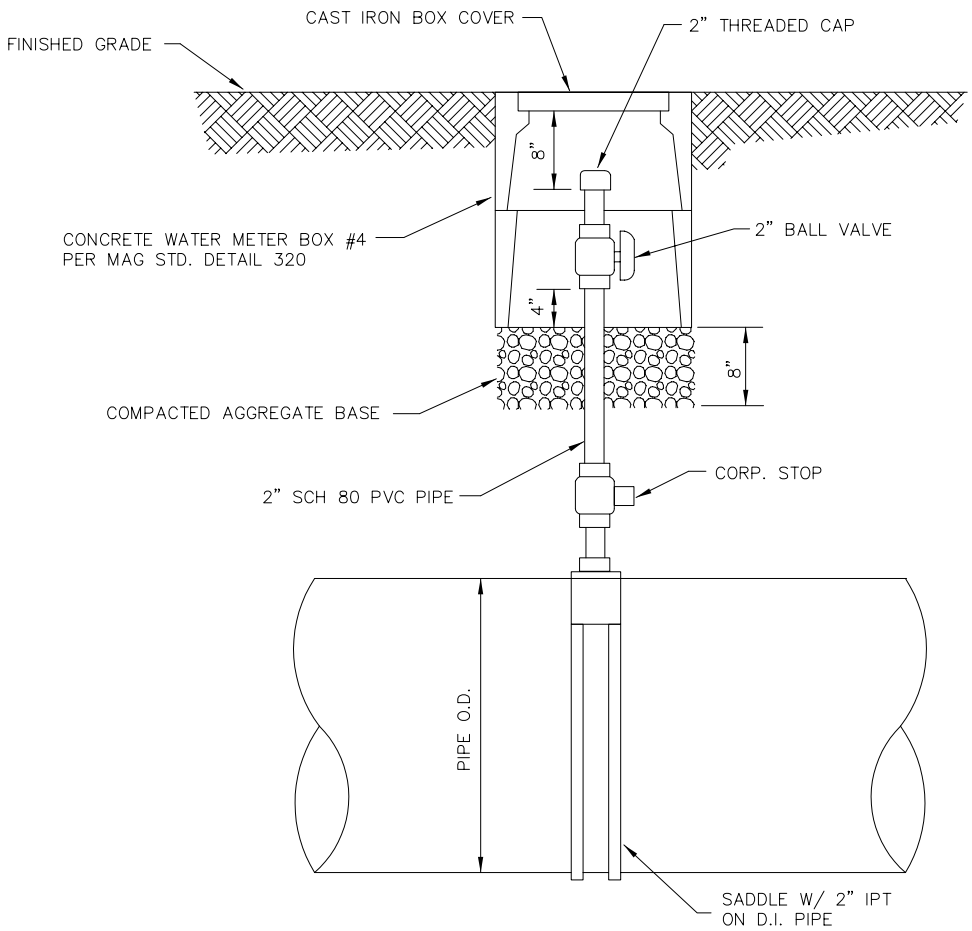
1. FOR LARGER METERS SPECIAL VAULT DESIGN IS REQUIRED.
2. USE OF REMOTE READING DEVICE AT OPTION OF UTILITY.
3. AN APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE REQUIRED DOWNSTREAM OF THE WATER METER. CONTACT WATER RESOURCES, BACKFLOW PREVENTION FOR SPECIFIC INFORMATION.

DETAIL NO. G-3313-2	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	3", 4", 6" WATER METER	DETAIL NO. G-3313-2

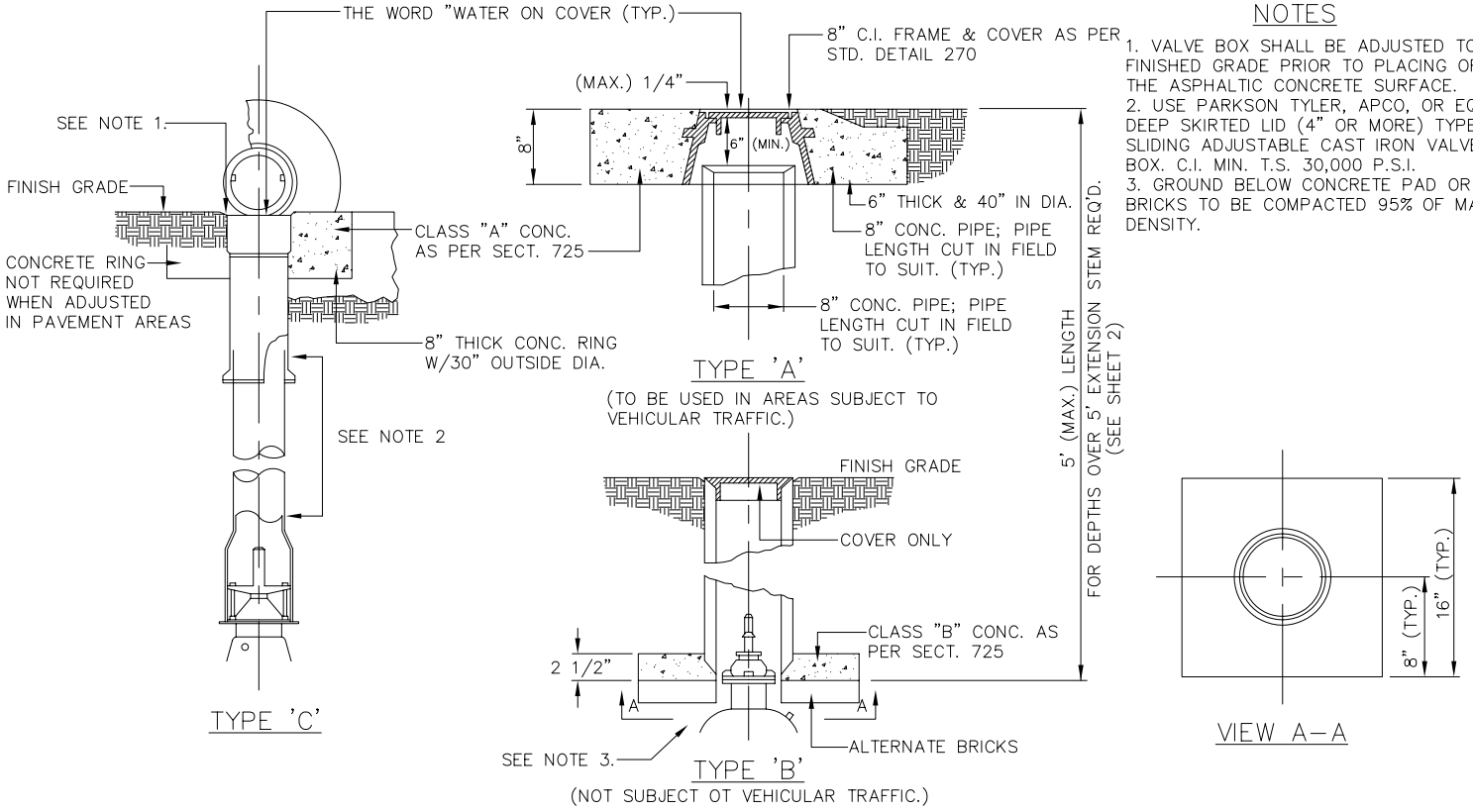


NOTE:
SPECIFICATIONS ON ALL FITTINGS SHALL EXCEED THE MAXIMUM PRESSURES OF THE SYSTEM.

DETAIL NO. G-3315	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	CHLORINE INJECTION TAP FOR UNDERGROUND WATERLINE	DETAIL NO. G-3315



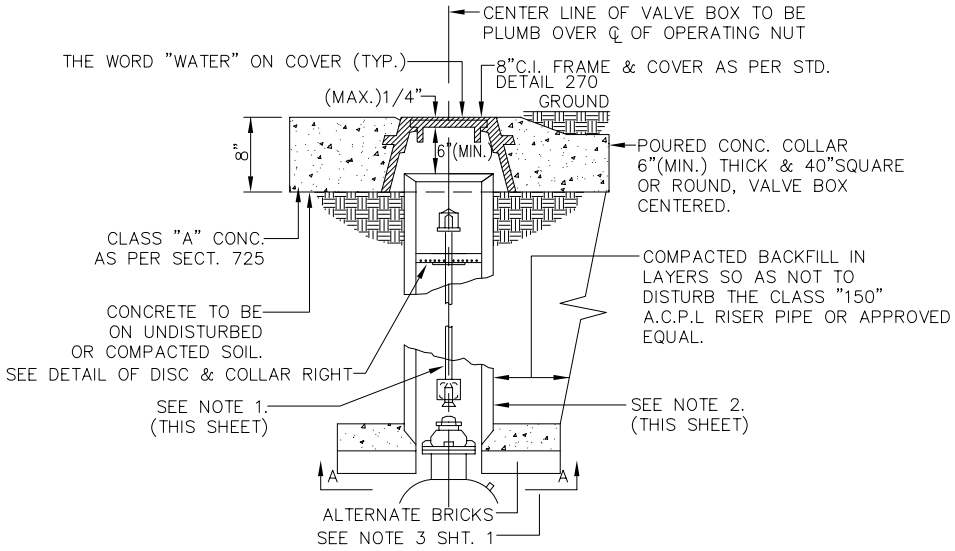
DETAIL NO. G-3316	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	TAP FOR FUTURE CHLORINE INJECTION	DETAIL NO. G-3316

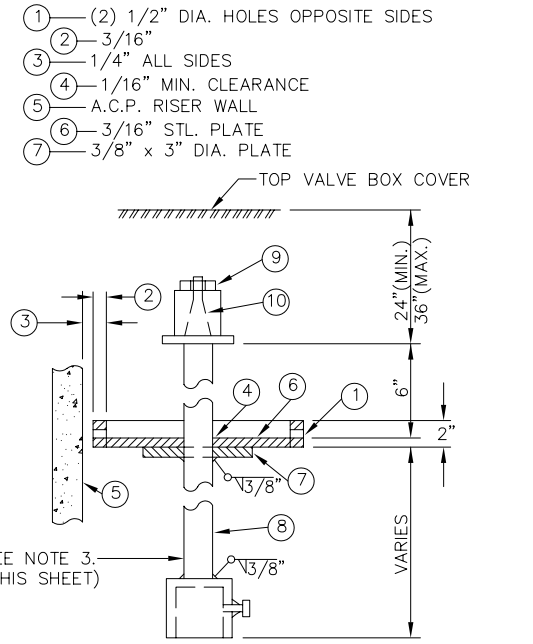


NOTES

1. VALVE BOX SHALL BE ADJUSTED TO THE FINISHED GRADE PRIOR TO PLACING OF THE ASPHALTIC CONCRETE SURFACE.
2. USE PARKSON TYLER, APCO, OR EQUAL DEEP SKIRTED LID (4" OR MORE) TYPE, SLIDING ADJUSTABLE CAST IRON VALVE BOX. C.I. MIN. T.S. 30,000 P.S.I.
3. GROUND BELOW CONCRETE PAD OR 3 BRICKS TO BE COMPACTED 95% OF MAX. DENSITY.

DETAIL NO. G-3320-1	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	VALVE BOX INSTALLATION AND GRADE ADJUSTMENT	DETAIL NO. G-3320-1

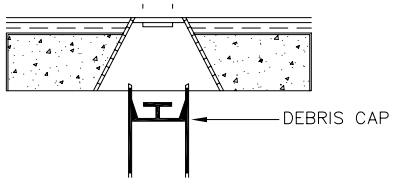




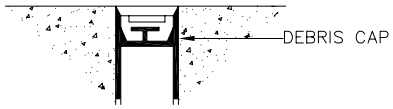
NOTES

1. EXTENSION STEM: WITH SQUARE SOCKET ON BOTTOM TO FIT 2"SQUARE VALVE NUT. EXTENSION TO VALVE STEMS REQUIRED ON ALL VALVES INSTALLED WHERE OPERATION NUT IS OVER 5' BELOW SURFACE. LENGTH TO FIT EACH INSTALLATION. OPERATING NUT TO BE HELD ON TOP OF EXTENSION WITH STOP NUT.
2. IF TWO OR MORE JOINTS OF A.C.P. ARE USED TO MAKE RISER, USE STANDARD A.C. PIPE RUBBER GASKET COUPLING TO JOIN PIPE. WHERE RISER LENGTH EXCEEDS 10' USE 12' A.C. PIPE
3. STEM PAINTING: ALL STEEL TO HAVE PRIME COAT OF PAINT NO.1-D AND ONE HEAVY APPLICATION (FINISH COAT) OF PAINT NO.9 AS PER SECT. 790.

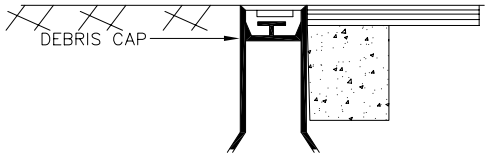
DETAIL NO. G-3320-2	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	VALVE BOX INSTALLATION	DETAIL NO. G-3320-2



TYPE "A"



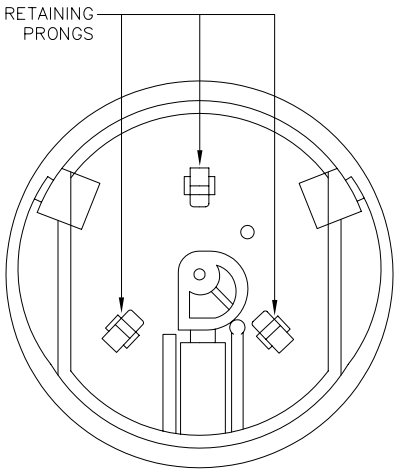
TYPE "B"



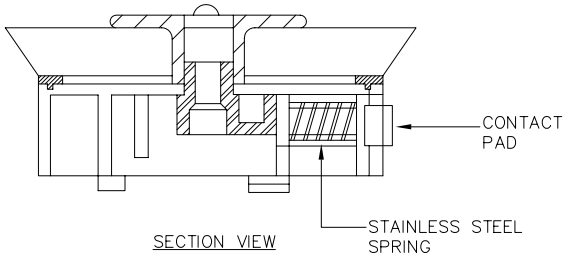
TYPE "C"

NOTES

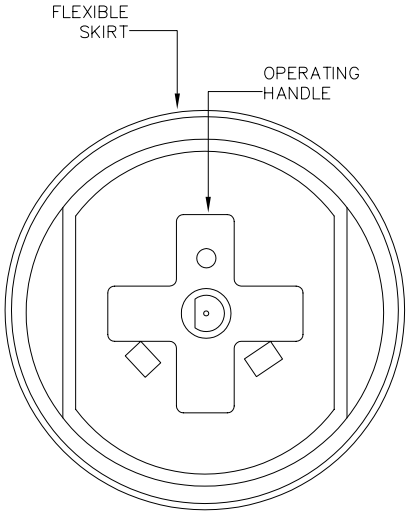
1. DEBRIS CAP SHALL BE INSTALLED AS CLOSE UNDER THE CAST IRON COVER WITHOUT INTERFERING WITH COVER OPERATION.
2. FLEXIBLE SKIRT SHALL BE TRIMMED TO PROVIDE A SMOOTH CONTACT WITH THE INTERIOR DIAMETER OF THE PIPE.
3. THE DEBRIS CAP SHALL BE MANUFACTURED BY SW SERVICES, INC., PHOENIX, ARIZONA OR EQUAL.
4. THE DEBRIS CAP SHALL BE COMPRISED OF A HOLLOW MEMBER HAVING A CYLINDRICAL OUTER SURFACE, A CLOSURE FOR ONE END AND THREE POINT RESILIENT CONTACT PADS PROJECTING FROM THE OUTER SURFACE. THE CAP SHALL HAVE A FLEXIBLE SKIRT PROVIDING AN OUTWARD SEAL PREVENTING DEBRIS FROM GETTING PAST THE CAP. THE CAP MUST WITHSTAND, WITHOUT SLIPPAGE, A MINIMUM VERTICAL FORCE OF 50 POUNDS, AT A LOADING RATE OF 1.0 IN/ MINUTE. THE CAP SHALL BE MOLDED USING GENERAL ELECTRIC ABS #HIM 4500. THE CAP SHALL HAVE RETAINING PRONGS TO RETAIN A STANDARD LOCATING COIL.



BOTTOM VIEW

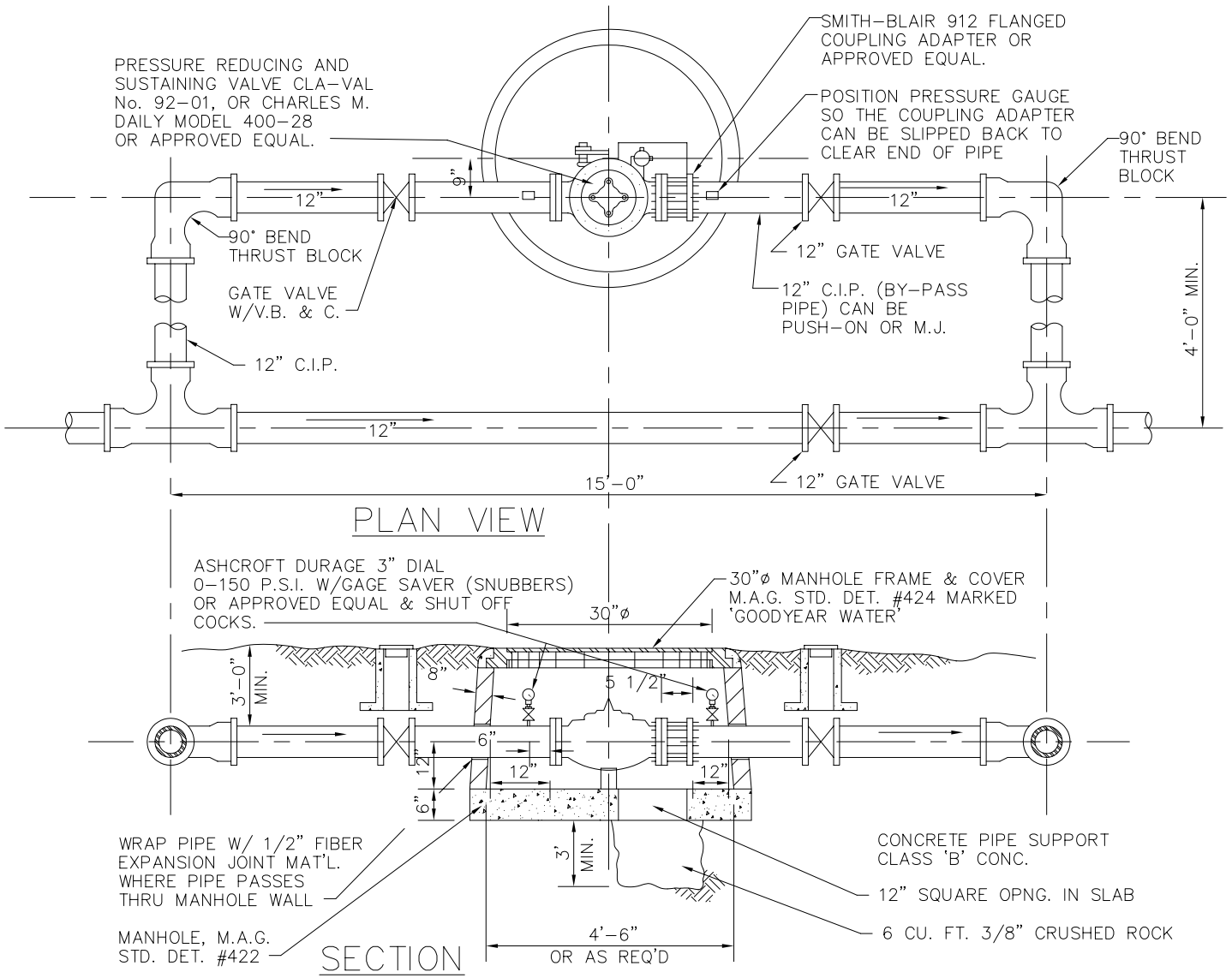


SECTION VIEW



TOP VIEW

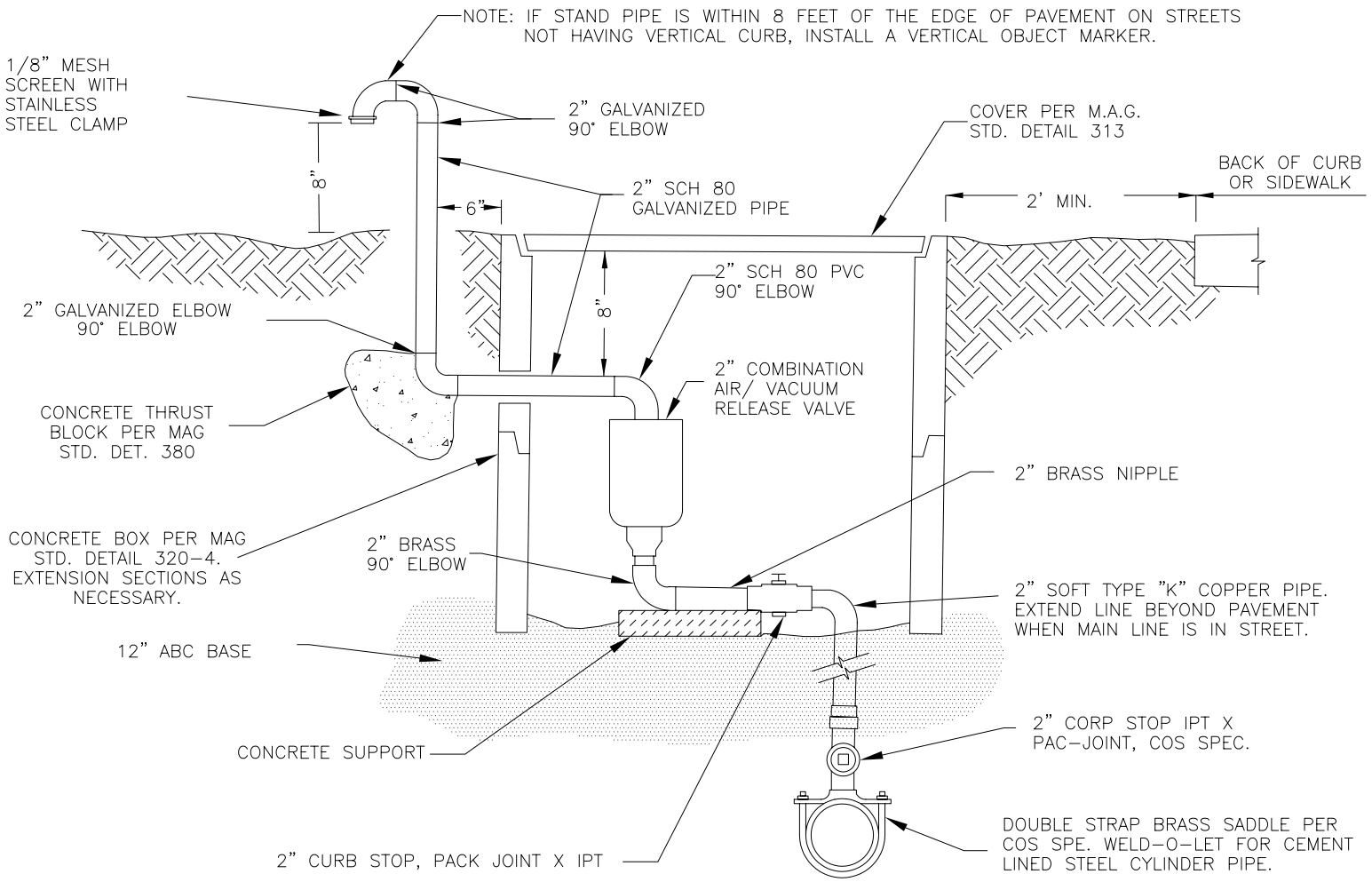
DETAIL NO. G-3321	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	DEBRIS CAP INSTALLATION	DETAIL NO. G-3321



GENERAL NOTES

1. VALVE SHALL BE IRON BODY, CLASS 125, FLANGED ENDS, HYDRAULICALLY OPERATED, PILOT CONTROLLED, DIAPHRAGM TYPE, GLOVE PATTERNED VALVE. IT SHALL BE TREATED AT 175 P.S.I. MINIMUM PRESSURE.
2. MANUFACTURERS NAME, YEAR OF MANU-FACTOR, SIZE OF VALVE AND GUARANTEED WORKING PRESSURE SHALL BE ENGRAVED ON THE VALVE OR AN A NAMEPLATE ATTACHED TO THE VALVE.
3. VALVE SHALL BE OPERATED BY A CONTROL SYSTEM WHICH INCLUDES PILOT CONTROLS FOR PRESSURE REDUCING AND FOR SUSTAINING. BOTH PILOT CONTROLS SHALL BE FIELD ADJUSTABLE FOR ANY PRESSURE IN THE RANGE OF 50 TO 120 P.S.I.

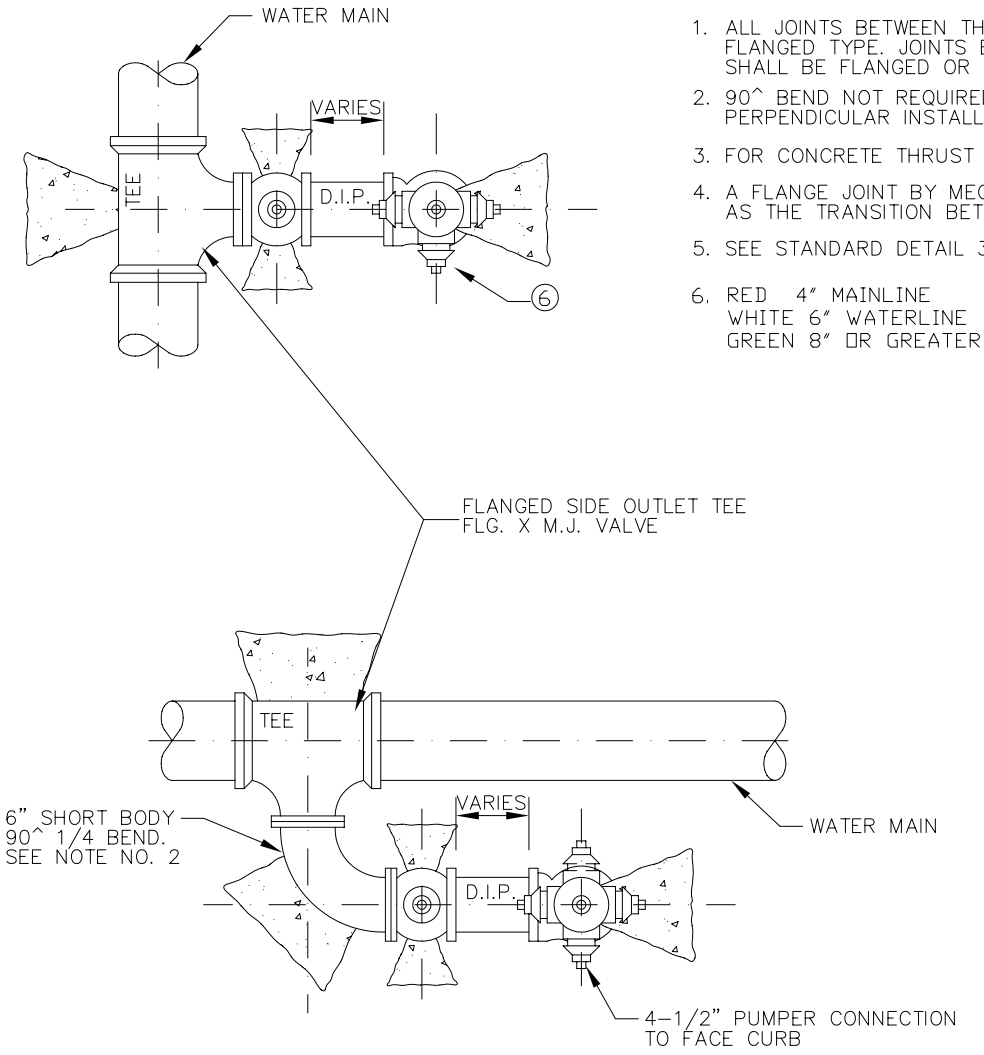
DETAIL NO. G-3323	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	PRESSURE REDUCING & SUSTAINING VALVE	DETAIL NO. G-3323

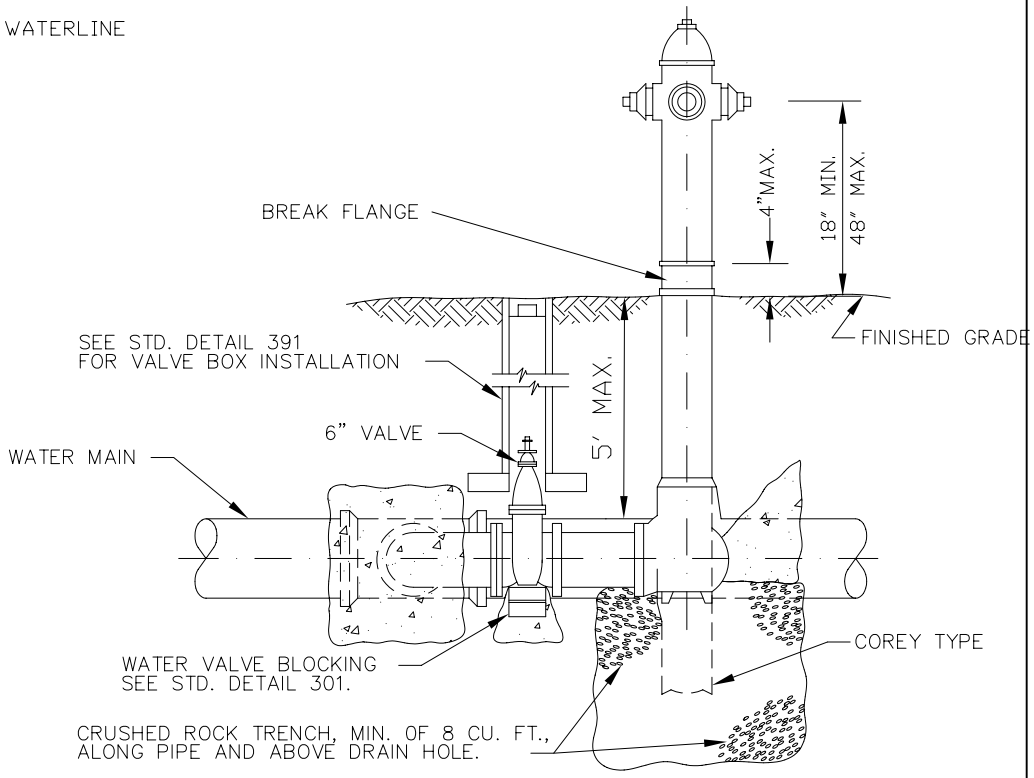


DETAIL NO. G-3328	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	2" AIR/VACUUM RELEASE VALVE	DETAIL NO. G-3328

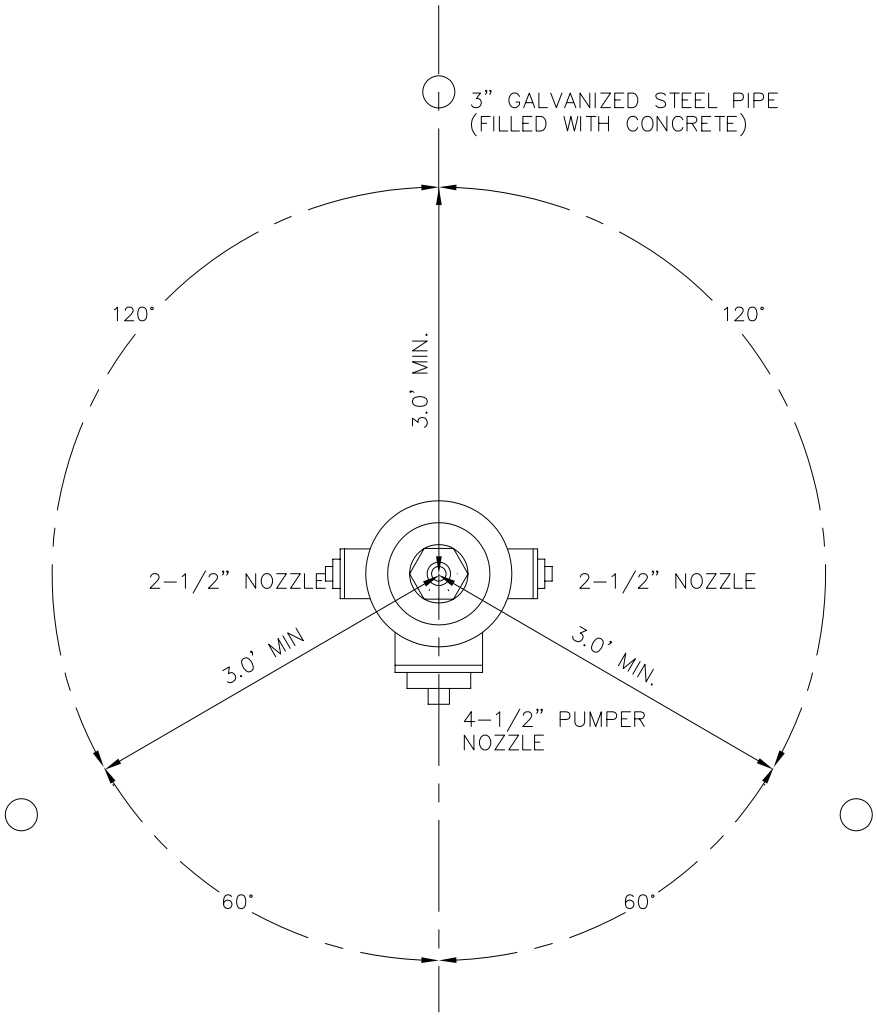
NOTES:

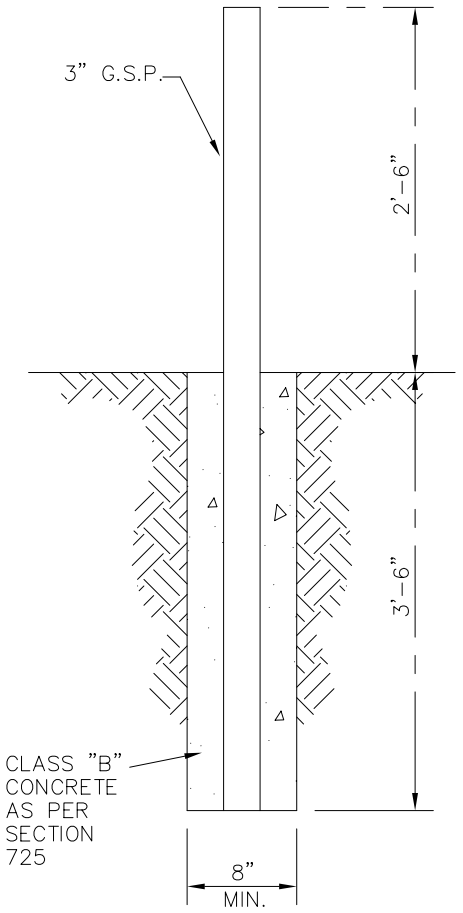
1. ALL JOINTS BETWEEN THE VALVE TO THE MAIN SHALL BE FLANGED TYPE. JOINTS BETWEEN THE VALVE AND HYDRANT SHALL BE FLANGED OR MECHANICAL TYPE.
2. 90^ BEND NOT REQUIRED IF SUFFICIENT ROOM FOR PERPENDICULAR INSTALLATION.
3. FOR CONCRETE THRUST BLOCKS SEE STD. DETAIL 380.
4. A FLANGE JOINT BY MECHANICAL JOINT VALVE MAY BE USED AS THE TRANSITION BETWEEN THE JOINT TYPES.
5. SEE STANDARD DETAIL 362 FOR LOCATION OF HYDRANT.
6. RED 4" MAINLINE
   WHITE 6" WATERLINE
   GREEN 8" OR GREATER WATERLINE





DETAIL NO. G-3330	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	FIRE HYDRANT INSTALLATION	DETAIL NO. G-3330

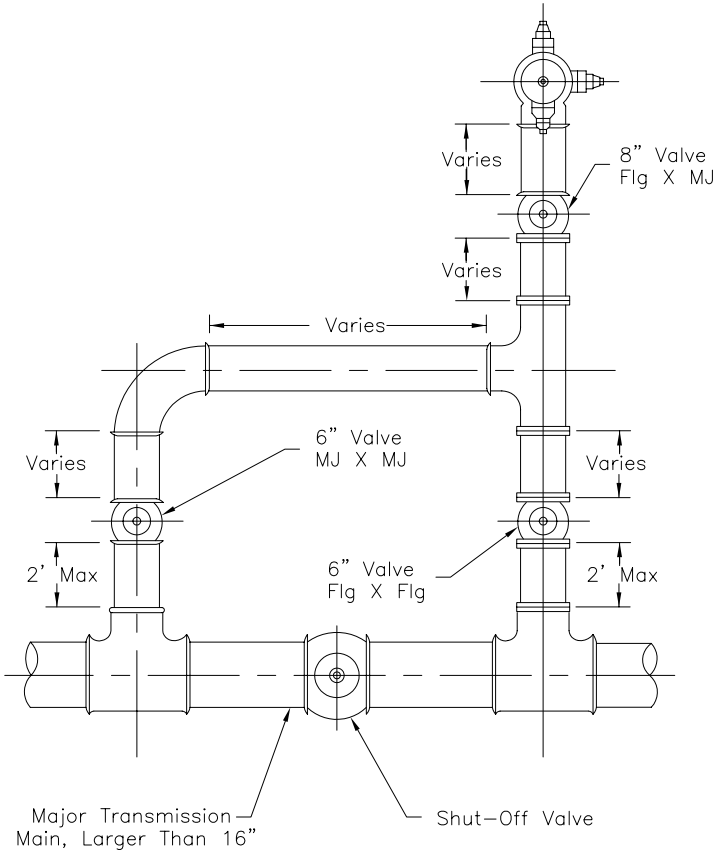


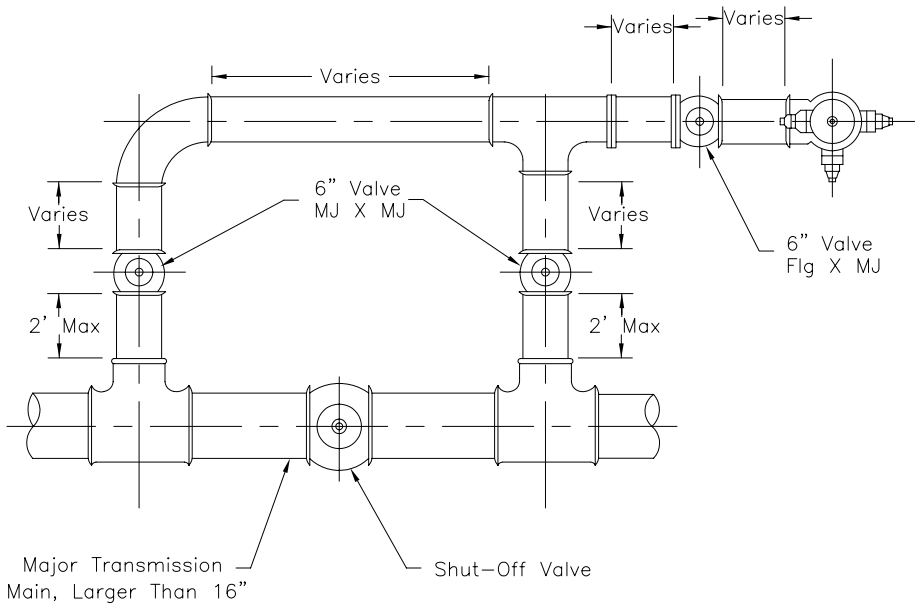


DETAIL NO. G-3332	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	HYDRANT GUARDS	DETAIL NO. G-3332

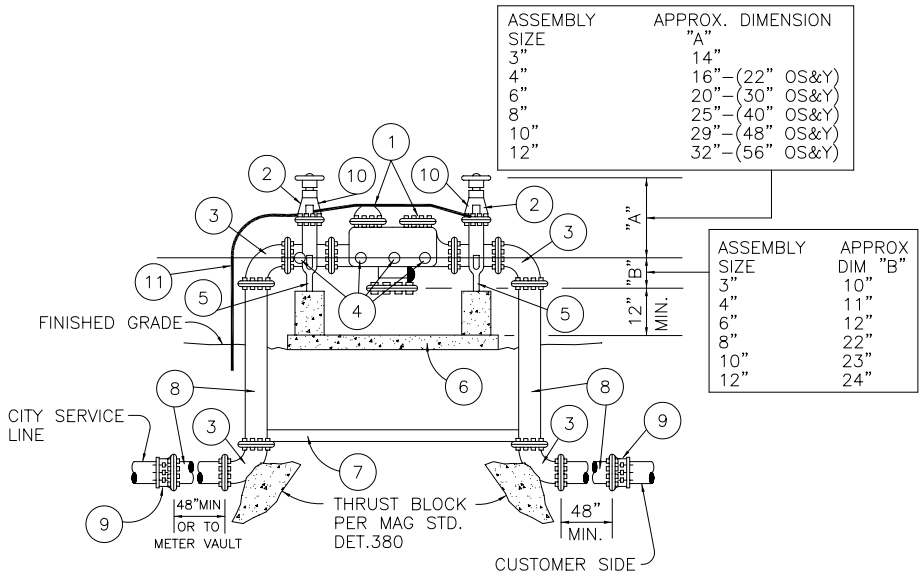
NOTES

1. All joints in hydrant run–out to be restrained joints.
2. See Std. Detail G–3320 & G–3321 for valve box installation.
3. For water valve blocking see MAG Std. Detail 301.
4. For additional information see Std. Detail G–3330.





DETAIL NO. G-3336	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	FIRE HYDRANT BYPASS ASSEMBLY	DETAIL NO. G-3336



REDUCED PRESSURE PRINCIPLE DEVICE

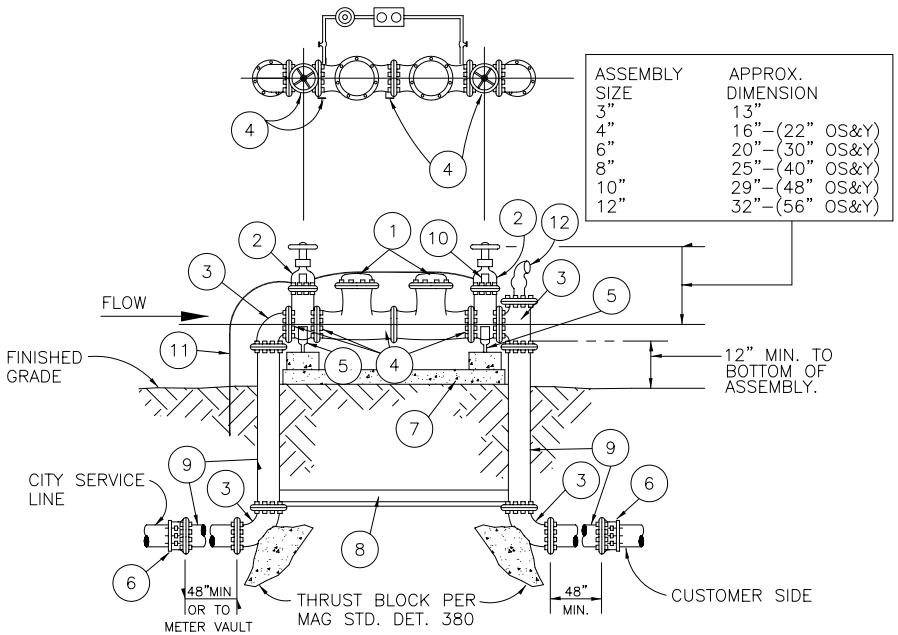
GENERAL NOTES

1. ASSEMBLY SHALL BE APPROVED BY U.S.C. FOUNDATION FOR CROSS CONNECTION AND HYDRAULIC RESEARCH.
2. CONTACT CITY OF GOODYEAR WATER OPERATIONS DIVISION FOR A LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
3. FOUR (4) TEST COCKS TO BE INSTALLED PER U.S.C.
4. COPPER FITTINGS SHALL BE CONNECTED WITH LEAD–FREE SOLDER JOINTS.
5. FINISHED GRADE BELOW BACKFLOW PREVENTER SHALL BE 95% COMPACTION.
6. ASSEMBLY MAY BE PAINTED TO BLEND WITH LANDSCAPE SURFACE TREATMENT OR ON–SITE STRUCTURES.
7. THE ASSEMBLY MAY ALSO BE SCREENED WITH SHRUBBERY OR BE ENCLOSED WITHIN A WALL TYPE STRUCTURE. ADEQUATE DRAINAGE FOR SURFACE WATER IS REQUIRED.
8. ANY SCREENING/ENCLOSURE MUST PROVIDE A MINIMUM 18" ACCESS OPENING (UNSECURED GATES ARE ACCEPTABLE) AND SIDE WALLS OR SHRUBBERY MUST BE A MINIMUM OF 24" FROM THE OUTSIDE FACE OF ANY PORTION OF THE BACKFLOW PREVENTION DEVICE.
9. ASSEMBLY MAY BE PROTECTED BY GUARD POSTS (MODIFY P–1359, HYDRANT GUARDS, PHOENIX SUPPLEMENT TO MAG).

LIST OF MATERIALS

1. APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE.
2. GATE VALVE, RESILIENT SEATED (NON–RISING STEM)(O.S.&Y. REQUIRED ON FIRELINES).
3. 90° ELL (FLANGED D.I.P. 3" THROUGH 12").
4. TEST COCK, RESILIENT SEATED (4 REQUIRED) FIT WITH BRASS PLUG.
5. ADJUSTABLE PIPE SUPPORT PERMANENTLY ATTACHED TO BASE (4" AND LARGER ASSEMBLY ONLY).
6. CONCRETE SUPPORT PAD 4" THICK BY 18" WIDE MINIMUM BENEATH 4" AND LARGER ASSEMBLIES. (CLASS "A" CONCRETE)
7. 3"X3"X1/4" STEEL ANGLE. BOLT TO FLANGE, EACH END WITH ONE BOLT. COAT WITH COAL TAR EPOXY (16 MILS) REQUIRED ON 4" AND LARGER ASSEMBLIES.
8. PIPE SPOOL (FLANGED D.I.P. 3" THRU 12").
9. FLANGED ADAPTER (WHEN REQUIRED).
10. TAMPER SWITCH (ON FIRELINE ONLY, OPTIONAL).
11. ELECTRICAL CONDUIT FOR TAMPER SWITCH.

DETAIL NO. G-3351	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY INSTALLATION - 3" AND OVER	DETAIL NO. G-3351



DOUBLE CHECK VALVE ASSEMBLY

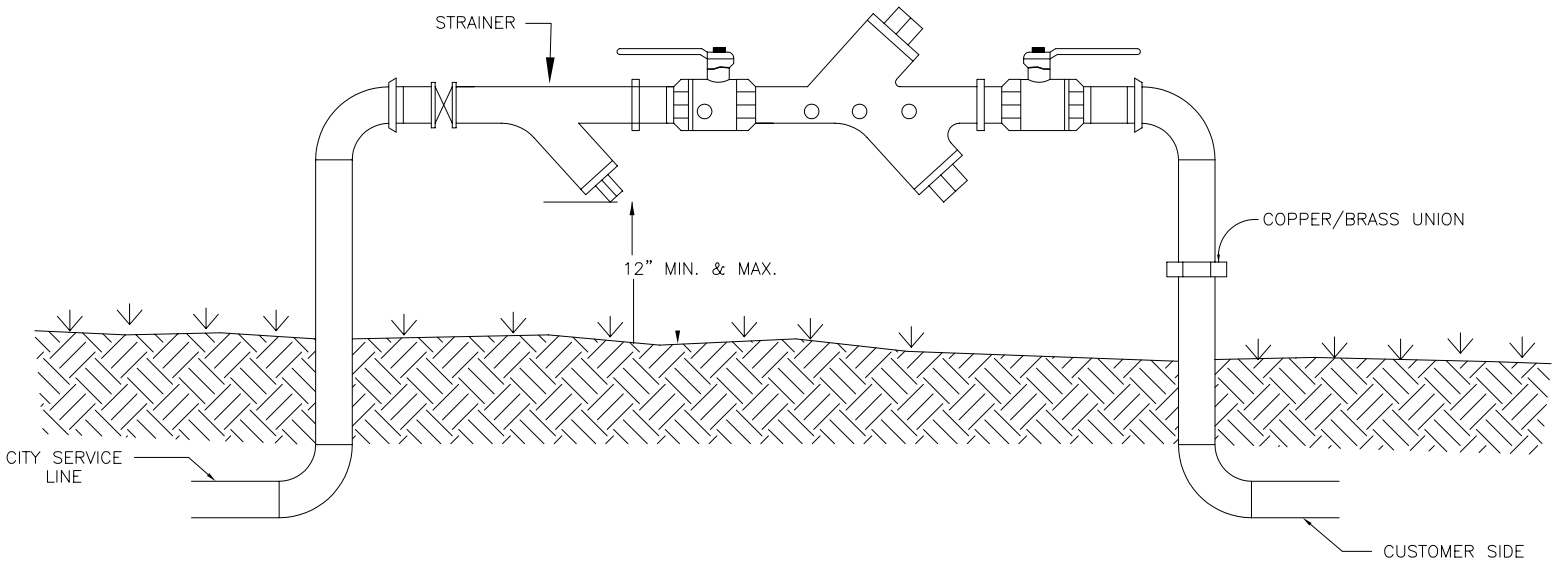
GENERAL NOTES

1. ASSEMBLY SHALL BE APPROVED BY U.S.C. FOUNDATION FOR CROSS CONNECTION AND HYDRAULIC RESEARCH.
2. CONTACT CITY OF GOODYEAR, WATER OPERATIONS DIVISION, FOR A LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
3. FOUR (4) TEST COCKS TO BE INSTALLED PER U.S.C.
4. COPPER FITTINGS SHALL BE CONNECTED WITH LEAD–FREE SOLDER JOINTS.
5. FINISHED GRADE BELOW BACKFLOW PREVENTER SHALL BE 95% COMPACTION.
6. ASSEMBLY, EXCEPT SIAMESE F.D.C., MAY BE PAINTED TO BLEND WITH LANDSCAPE SURFACE TREATMENT OR ON–SITE STRUCTURES.
7. THE ASSEMBLY MAY ALSO BE SCREENED WITH SHRUBBERY OR BE ENCLOSED WITHIN A WALL TYPE STRUCTURE. ADEQUATE DRAINAGE FOR SURFACE WATER IS REQUIRED.
8. ANY SCREENING/ENCLOSURE MUST PROVIDE A MINIMUM 18" ACCESS OPENING (UNSECURED GATES ARE ACCEPTABLE) AND SIDE WALLS OR SHRUBBERY MUST BE A MINIMUM OF 24" FROM THE OUTSIDE FACE OF ANY PORTION OF THE BACKFLOW PREVENTION DEVICE.
9. ASSEMBLY MAY BE PROTECTED BY GUARD POSTS (MODIFY PER G–3332, HYDRANT GUARDS, GOODYEAR SUPPLEMENT TO MAG).

LIST OF MATERIALS

1. APPROVED DOUBLE CHECK VALVE ASSEMBLY.
2. GATE VALVE, RESILIENT SEATED (NON–RISING STEM)(O.S.&Y. REQUIRED ON FIRELINE).
3. 90° ELL (FLANGED D.I.P. 3" THROUGH 12").
4. TEST COCK, RESILIENT SEATED (4 REQUIRED) FIT WITH BRASS PLUG.
5. ADJUSTABLE PIPE SUPPORT PERMANENTLY ATTACHED TO BASE (4" AND LARGER ASSEMBLY ONLY).
6. FLANGE ADAPTER (WHEN REQUIRED).
7. CONCRETE SUPPORT PAD 4" THICK BY 18" WIDE MINIMUM BENEATH 4" AND LARGER ASSEMBLIES. (CLASS "A" CONC).
8. 3"X3"X1/4" STEEL ANGLE. BOLT TO FLANGE, EACH END WITH ONE BOLT. COAT WITH COAL TAR EPOXY (16 MILS) REQUIRED ON 4" AND LARGER ASSEMBLIES.
9. PIPE SPOOL (FLANGED D.I.P. 3" THRU 12").
10. TAMPER SWITCH (ON FIRELINE ONLY, OPTIONAL).
11. ELECTRICAL CONDUIT FOR TAMPER SWITCH.
12. TEE, BLIND FLANGE TAPPED 4" WITH SIAMESE 2 1/2" F.D.C. WITH NATIONAL STANDARD THREADS AND CHECK VALVE PAINTED RED.

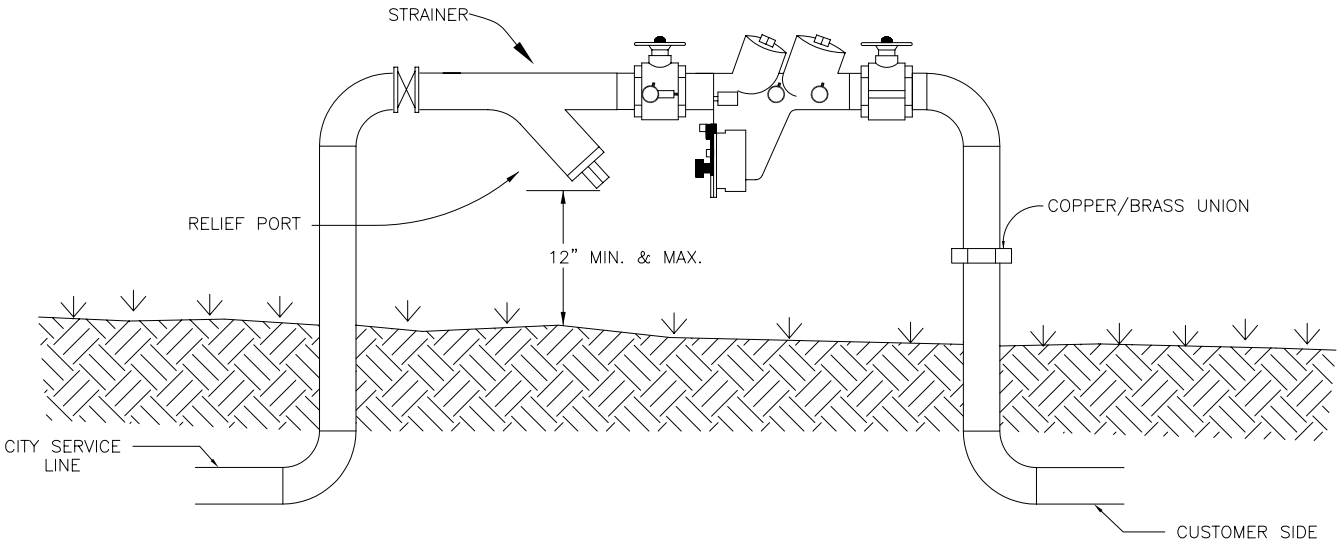
DETAIL NO. G-3352	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	DOUBLE-CHECK DETECTOR VALVE BACKFLOW PREVENTION ASSEMBLY INSTALLATION - 3" AND OVER	DETAIL NO. G-3352



NOTES:

1. ALL PIPE/FITTINGS TO BE TYPE "K" COPPER.
2. CONTACT CITY OF PHOENIX WATER SERVICES DEPARTMENT, WATER QUALITY DIVISION FOR LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
3. BACKFLOW PREVENTION ASSEMBLY MUST BE LEVEL AND INSTALLED A MINIMUM AND A MAXIMUM OF 12 INCHES FROM ASSEMBLY BODY TO FINAL GRADE.
4. TEST COCKS, (4) SHALL BE FITTED WITH BRASS PLUGS INSTALLED WITH TEFLON TAPE.
5. SHUTOFF VALVES TO BE RESILIENT BALL TYPE WITH REMOVABLE HANDLES.
6. COMPRESSION TYPE FITTINGS ARE NOT ALLOWED.
7. INSTALL THE BACKFLOW PREVENTION ASSEMBLY IMMEDIATELY DOWNSTREAM OF THE CITY WATER METER.
8. A COPPER/BRASS UNION MUST BE INSTALLED IN THE MIDDLE OF THE DOWNSTREAM RISER.
9. ASSEMBLY SHALL BE APPROVED BY U.S.C. FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
10. COPPER FITTINGS SHALL BE CONNECTED WITH LEAD-FREE SOLDER JOINTS.

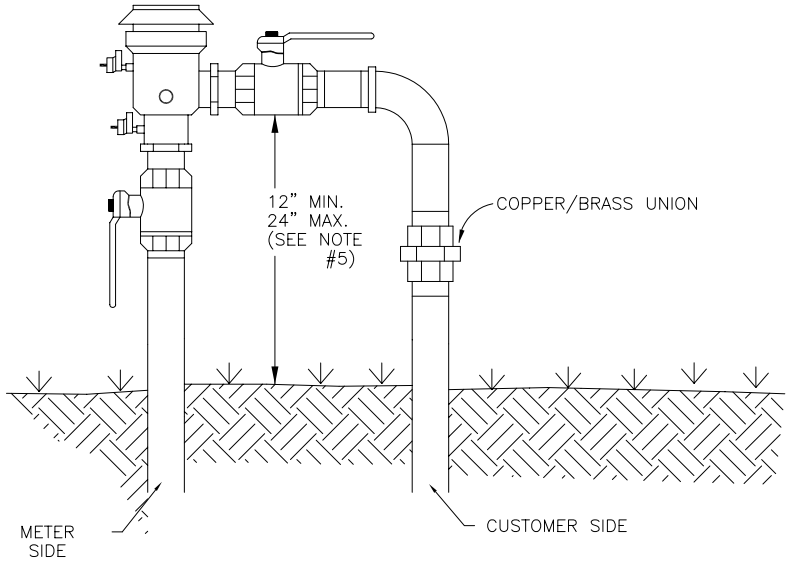
DETAIL NO. G-3353	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	DOUBLE - CHECK VALVE BACKFLOW PREVENTION ASSEMBLY INSTALLATION - 2 1/2" AND UNDER	DETAIL NO. G-3353



NOTES:

1. ALL PIPE/FITTINGS TO BE TYPE "K" COPPER.
2. ASSEMBLY SHALL BE APPROVED BY U.S.C. FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
3. INSTALL BACKFLOW PREVENTION ASSEMBLY WITH RELIEF PORT FACING TOWARD THE GROUND.
4. BACKFLOW PREVENTION ASSEMBLY MUST BE LEVEL AND INSTALLED A MINIMUM AND A MAXIMUM OF 12 INCHES FROM RELIEF PORT TO FINAL GRADE.
5. PAVER CONCRETE BLOCK UNDER RELIEF PORT, SET AT FINAL GRADE.
6. TEST COCKS, (4) SHALL BE FITTED WITH BRASS PLUGS AND INSTALLED WITH TEFLON TAPE.
7. SHUTOFF VALVES TO BE RESILIENT BALL TYPE WITH REMOVABLE HANDLES.
8. COMPRESSION TYPE FITTINGS ARE NOT ALLOWED.
9. INSTALL THE BACKFLOW PREVENTION ASSEMBLY IMMEDIATELY DOWNSTREAM OF THE CITY WATER METER.
10. A COPPER/BRASS UNION MUST BE INSTALLED IN THE MIDDLE OF THE DOWNSTREAM RISER.
11. CONTACT CITY OF PHOENIX WATER SERVICES DEPARTMENT, WATER QUALITY DIVISION FOR LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
12. COPPER FITTINGS SHALL BE CONNECTED WITH LEAD-FREE SOLDER JOINT.

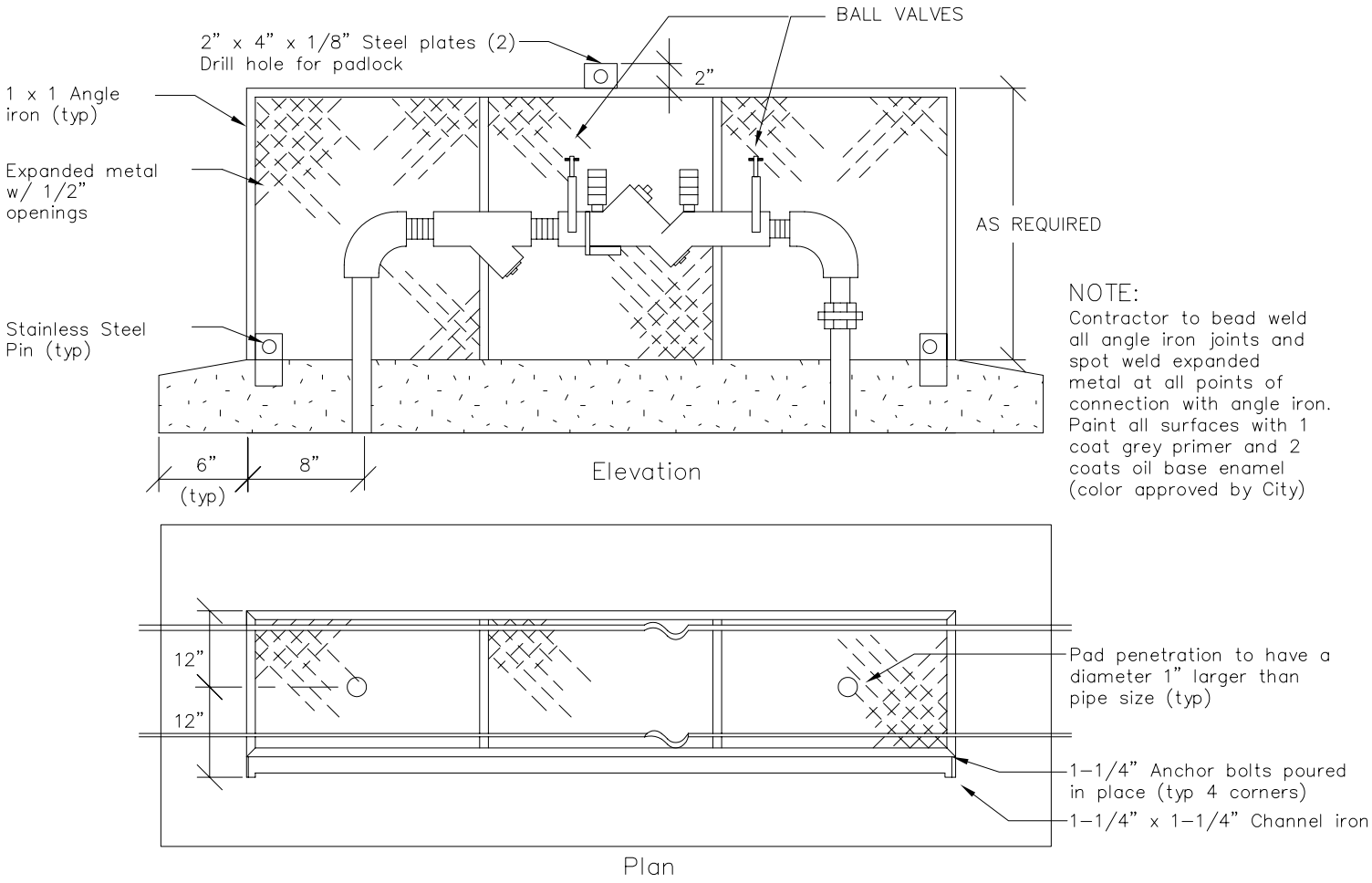
DETAIL NO. G-3354	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY INSTALLATION - 2 1/2" AND UNDER	DETAIL NO. G-3354



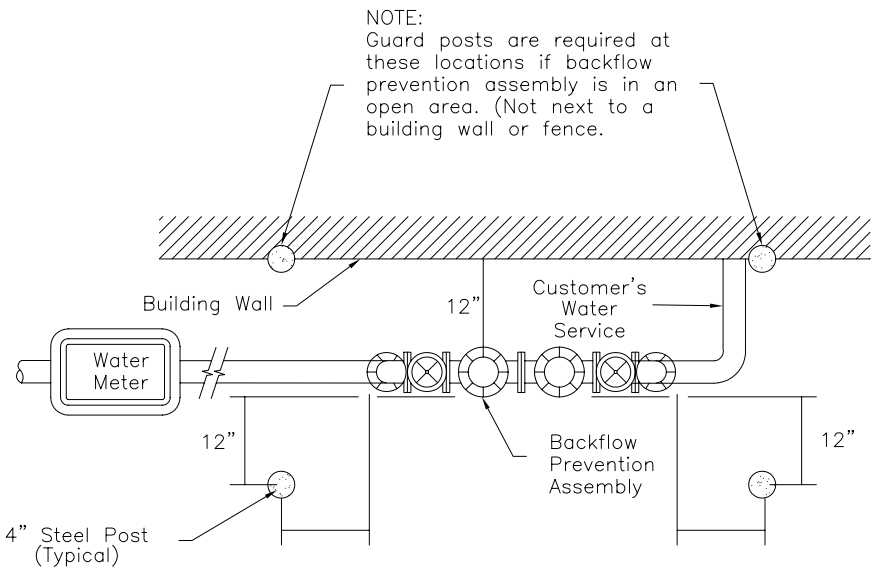
NOTES:

1. CONTACT CITY OF PHOENIX WATER SERVICES DEPARTMENT, WATER QUALITY DIVISION FOR LIST OF APPROVED PRESSURE VACUUM BREAKER ASSEMBLIES.
2. ASSEMBLY SHALL BE APPROVED BY U.S.C. FOUNDATION FOR CROSS–CONNECTION CONTROL AND HYDRAULIC RESEARCH.
3. TWO (2) TEST COCKS SHALL BE FITTED WITH BRASS PLUGS INSTALLED WITH TEFLON TAPE.
4. SHUTOFF BALL VALVES MUST BE RESILIENT SEATED VALVES AS PER U.S.C..
5. ASSEMBLY MUST BE INSTALLED 12 INCHES ABOVE THE HIGHEST OUTLET ON THE SYSTEM. IF THE DISTANCE EXCEEDS 24 INCHES A REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY MUST BE USED.
6. ALL PIPE/FITTINGS TO BE TYPE "K" COPPER.
7. A COPPER/BRASS UNION MUST BE INSTALLED IN THE MIDDLE OF THE DOWNSTREAM RISER.
8. INSTALL THE BACKFLOW PREVENTION ASSEMBLY IMMEDIATELY DOWNSTREAM OF THE CITY WATER METER.
9. COPPER FITTINGS TO BE CONNECTED WITH LEAD–FREE SOLDER JOINTS.

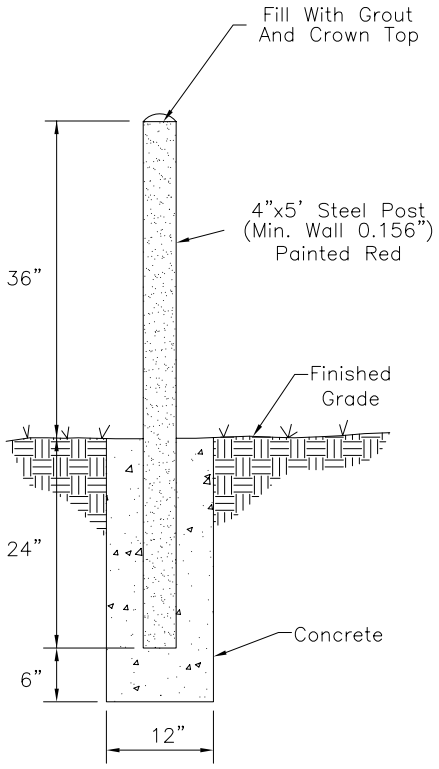
DETAIL NO. G-3355	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	PRESSURE VACUUM BREAKER ASSEMBLY INSTALLATION - 2" AND UNDER	DETAIL NO. G-3355



DETAIL NO. G-3357	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	BACKFLOW PREVENTION DEVICE SECURITY ENCLOSURE DETAIL	DETAIL NO. G-3357

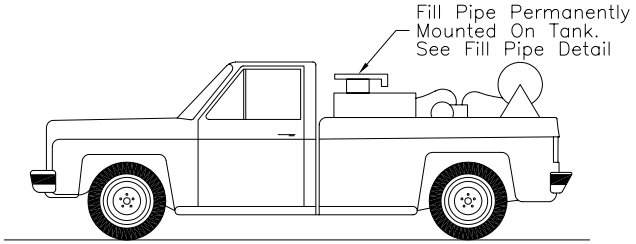


PLAN VIEW

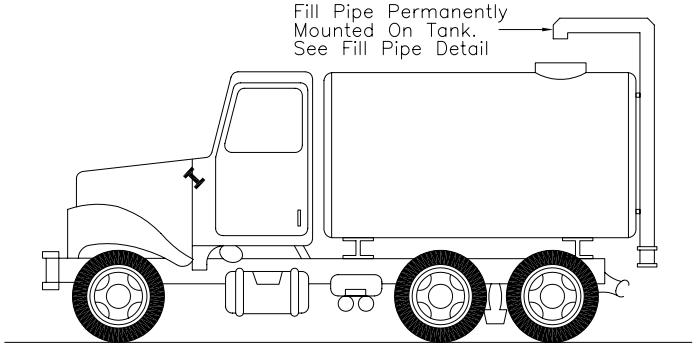


GUARD POST SECTION

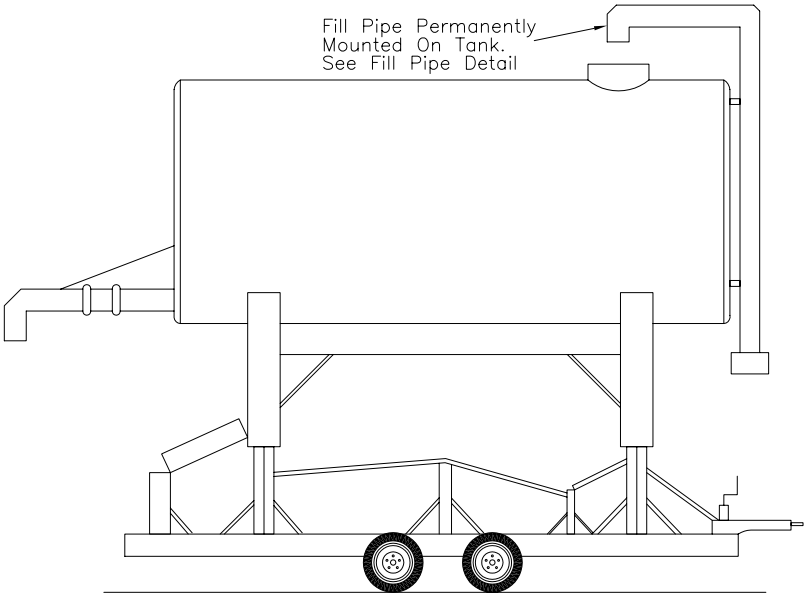
DETAIL NO. G-3358	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	GUARD POSTS FOR BACKFLOW PREVENTION ASSEMBLIES	DETAIL NO. G-3358



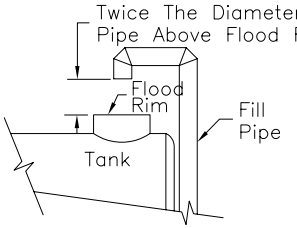
PESTICIDE APPLICATOR TRUCK



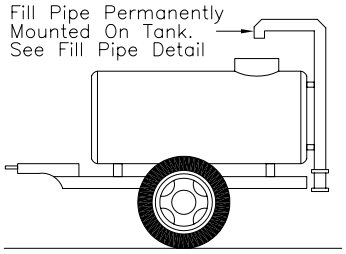
WATER TRUCK



ELEVATED TANK

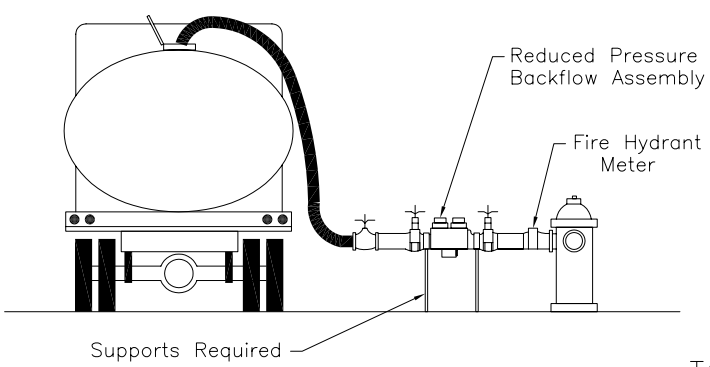


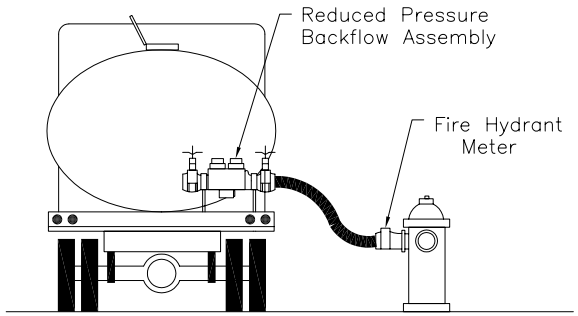
FILL PIPE DETAIL



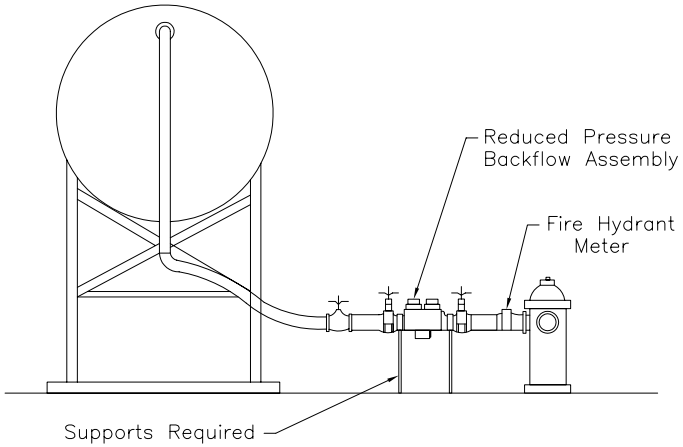
WATER WAGON

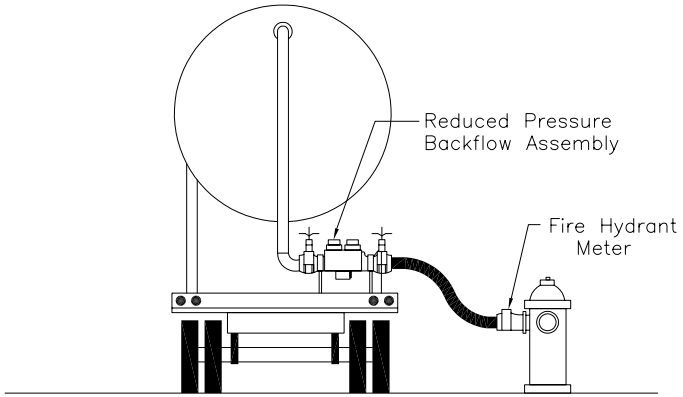
DETAIL NO. G-3360	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	FILL PIPE DETAILS FOR PORTABLE TANKS WITH AIR GAP SEPARATION	DETAIL NO. G-3360





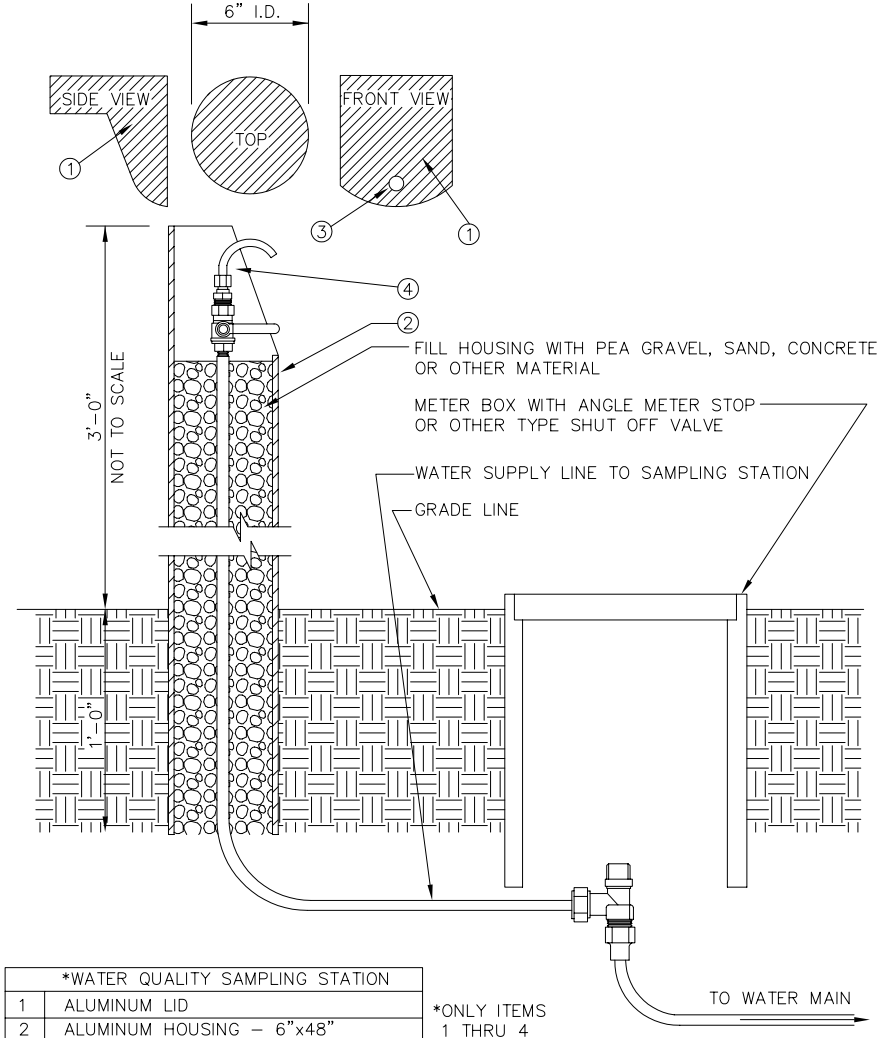
TANK TRUCKS





ELEVATED TANKS

DETAIL NO. G-3361	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	BACKFLOW PREVENTION METHOD FOR PORTABLE TANKS WITH NO AIR GAP SEPARATION	DETAIL NO. G-3361



*WATER QUALITY SAMPLING STATION	
1	ALUMINUM LID
2	ALUMINUM HOUSING – 6"x48"
3	FLUSH MOUNTED LOCK
4	BALL VALVE, 1/2"x3/8", 400 P.S.I.

*ONLY ITEMS 1 THRU 4 INCLUDED

DETAIL NO. G-3370	CITY OF GOODYEAR STANDARD DETAIL	APPROVED BY: Goodyear Standards and Policies Committee 7/97	WATER QUALITY SAMPLING STATION	DETAIL NO. G-3370